

September 23, 2020

Via Sharefile

Mr. Andrew Park Hazardous Waste Programs Branch US Environmental Protection Agency Region 2 290 Broadway, 22nd Floor New York, New York 10007-1866

Re: Revised CA725 Environmental Indicator
Hess Corporation Former Port Reading Complex
Port Reading, Middlesex County, New Jersey
NJDEP PI# 006148
EPA ID No. NJD045445483

Dear Mr. Park:

Attached please find the Revised CA725 Environmental Indicator Report for the above-referenced site. Should you have any questions or require additional information, please contact me at 732-739-6444 or via e-mail at ablake@earthsys.net. If you have any questions relating to the project and schedule moving forward, you can also contact Mr. John Schenkewitz of Hess Corporation at 609-406-3969.

Sincerely,

Sr. Project Manager

c. Ms. Julia Galayda, NJDEP Case Manager (via Sharefile)

Mr. John Schenkewitz – Hess Corporation (via Sharefile)

Mr. Rick Ofsanko – Earth Systems (via Sharefile)

Mr. John Virgie – Earth Systems (via Sharefile)

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name:		Hess Corporation – Former Port Reading Complex					
Facilit	y Address:	750 Cliff Road, Port Reading (Woodbridge Township), NJ NJD045445483					
Facilit	y EPA ID #:						
1.	to soil, ground from Solid Was	le relevant/significant information on known and reasonably suspected releases water, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., ste Management Units (SWMU), Regulated Units (RU), and Areas of Concern onsidered in this EI determination?					
		f yes – check here and continue with #2 below.					
		f no – re-evaluate existing data, or f data are not available skip to #6 and enter "IN" (more information needed) status code.					
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BACKGROUND

The Hess Corporation — Former Port Reading Complex (HC-PR or Site) was operated as a petroleum refinery and bulk petroleum storage terminal by the Hess Corporation (Hess) since 1958, with refinery expansions occurring between 1958 and 1970. In 1974, refining operations were suspended and the facility operated only as a bulk storage and distribution terminal until 1985. In April 1985, following a retrofit, the facility resumed refining operations; producing gasoline, fuel oil, and other hydrocarbon products (e.g. methane, ethane, and liquid petroleum gas). In 2013, Hess sold the facility to Buckeye Partners L.P. (Buckeye), who continues to use the facility for bulk storage and distribution of petroleum products. The demolition of the refining portion of the facility was completed in early 2015.

The Site is located east of West Avenue, southeast of Port Reading Avenue, and southwest of the Conrail Port Reading rail yard and former coal docks. The Arthur Kill shipping channel is located adjacent to the site on the east/southeast and Smith Creek, a tributary of the Arthur Kill, is located to the south of the Site. The PSE&G Sewaren Generating Facility is located southwest of the Site (see **Figure 1**). A Site Plan is included as **Figure 2** and a tax map is included as **Figure 3** The closest residential properties are located approximately 550 feet to the west of Cliff Road. The closest child-care facility is located approximately 900 feet to the west of Cliff Road. A map depicting surrounding land uses is included as **Figure 5**.

Due to historic operations, the Site is jointly regulated by both the New Jersey Department of Environmental Protection (NJDEP) and the EPA. The Site is regulated under the NJ Industrial Site Recovery Act (ISRA) due to the sale of the property and subject to RCRA regulations since former

operations required the treatment, storage, and disposal of hazardous waste. The EPA issued a Hazardous and Solid Waste Amendments (HSWA) Permit (No. NJD045445483) for the Port Reading facility effective May 1, 1988. The HSWA Permit requires the nature, extent, and rate of migration be determined for hazardous waste or hazardous constituents in soils, groundwater and sediment at any solid waste management unit (SWMU). The North Landfarm operated from 1975 to October 24, 1985, receiving Interim Status in 1980, as part of the USEPA permitting process and the Discharge to Groundwater permitting process under the New Jersey Pollutant Discharge Elimination System (NJPDES) for the facility. The South Landfarm was operated during the refinery standby period from 1975 until 1984. In 1980, the South Landfarm received RCRA "Interim Status" for operation as a RCRA land treatment unit for process wastes (K051 and K052). The No. 1 Landfarm began operations in December 1985 under a revised Part A Interim Status Permit granted by the NJDEP on April 26, 1984 and the RCRA Industrial Waste Management Facility (IWMF) Operating Permit (Interim NJPDES Discharge to Groundwater Permit No.: NJ 0028878 issued in April 1985) for operation of the No. 1 Landfarm. On November 14, 1995, Hess was informed, via NJDEP correspondence, that the Bureau of Federal Case Management (BFCM) would assume oversight of the North and South Landfarms in addition to other applicable areas of concern.

All landfarms are no longer operational. The following is the current status of each landfarm:

North Landfarm – A Remedial Action Workplan (RAW) was submitted to the USEPA and NJDEP for the North Landfarm in September 2016. A 90% Soil Remediation Action Design (RAD) for the North Landfarm engineering control was submitted to the USEPA and NJDEP on October 24, 2019. The NJDEP and USEPA issued an approval letter for the 90% design on April 28, 2020. The current owner, Buckeye, is in the process of lining the tankfield located directly adjacent to the North Landfarm. The 100% RAD will be finalized once the tankfield lining project is complete and as-built drawings are provided to Hess/Earth Systems.

<u>South Landfarm</u> – A RAW was submitted to the USEPA and NJDEP for the South Landfarm in September 2016. The 90% Soil RAD is currently being developed.

No. 1 Landfarm - A RAW was submitted to the USEPA and NJDEP in September 2016. The 100% design for the No. 1 Landfarm engineering control was submitted on May 24, 2019. Comments regarding the 100% engineering control design submittal were received from the NJDEP on October 7, 2019. The comments were addressed by Hess/Earth Systems on November 1, 2019 and the NJDEP subsequently approved the response. The NJDEP and USEPA issued an approval letter of the 100% design on April 28, 2020. The following permits have been submitted and are currently being reviewed by the respective agencies:

- Soil Erosion & Sediment Control Plan (Freehold Soil Conservation District)
- Flood Hazard Area Individual Permit (NJDEP Land Use Regulation Program)
- Waterfront Development GP-11 Permit (NJDEP Land Use Regulation Program)
- Freshwater Wetland GP-4 Permit (NJDEP Land Use Regulation Program)
- NJPDES B4B Permit (NJDEP Wastewater Program)
- Treatment Works Approval TWA-1 Permit (NJDEP Wastewater Program)
- NJPDES Individual Permit (NJDEP Stormwater Program)

Once permit review and approval is complete, installation of the No. 1 Landfarm cap (engineering control) will begin.

As per the RAWs, a Remedial Action Permit for soil and groundwater will be established for the entire Site, including the landfarms and the aeration basins, to document the engineering controls (cap) and impacts that will be left in place. The groundwater RAP will specify the groundwater monitoring requirements.

Hess understands that the intended future use of the Site is as a bulk petroleum storage facility. The deed restriction will restrict use of the Site to commercial/industrial purposes. The groundwater Classification Exception Area (CEA) will document the nature and extent of groundwater impacts for the Site and require that wells are installed in the area according to the Well Restriction document that will accompany the final CEA. Future groundwater analytical results will be compared to the NJ Groundwater Quality Standards and Vapor Intrusion Screening Levels, as applicable. It is not anticipated that any soil sampling will be conducted once the RAP for soil is in place. Once the RAP is in place, Hess will only conduct additional soil sampling if appropriate and in accordance with applicable NJDEP regulations. A map depicting current Site features is included as **Figure 6**.

Hess is responsible for the investigation and remediation of the SWMU, Areas of Concern (AOCs), and Historic Spills (HS). The following is a brief summary of the Site SWMU, AOCs, and HS. Maps depicting the locations of the SWMU and AOCs are included as **Figures 4**, **4.1**, **4.2**, **4.3**, and **4.4**.

SWMU Summary

- North Landfarm The North Landfarm was a land treatment system that was permitted to treat American Petroleum Institute (API) separator sludge and leaded tank bottoms. The unit operated from 1975 to 1988, treating approximately 21 tons of hazardous waste. Soil samples were collected in 2002 and 2009 as part of landfarm closure activities. Exceedances of the NJ Soil Remediation Standards were detected in the soil samples for Volatile Organic Compounds (VOCs), metals, and petroleum hydrocarbons. To address the soil impacts, the remedial strategy will include both institutional and engineering controls consisting of a deed restriction, groundwater CEA and a cap. Seven permitted monitoring wells are currently sampled on a quarterly basis until the landfarm is officially closed. Post-closure groundwater monitoring requirements will be specified in the remedial action permit.
- South Landfarm The South Landfarm was permitted to treat oily soils and sludges from the API separator, corrugated plate separator, recoverable oil tank bottoms, and petroleum product storage bottoms. The landfarm operated from 1975 to 1984. Soil samples were collected in 2002, 2003, and 2006 as part of landfarm closure activities. Exceedances of the NJ Soil Remediation Standards were detected in the soil samples for VOCs, metals, phenols, and petroleum hydrocarbons. To address the soil impacts, the remedial soil strategy will include both institutional and engineering controls consisting of a deed restriction, groundwater CEA, and a cap. Four permitted monitoring wells are currently sampled on a quarterly basis until the landfarm is officially closed. Post-closure groundwater monitoring requirements will be specified in the remedial action permit.

- No. 1 Landfarm The No. 1 Landfarm was constructed in 1985 with a leachate collection system and underlying compacted clay liner designed to prevent any leachate discharges into the groundwater. The landfarm treated API separator sludge, heat exchanger bundle cleaning sludge, leaded tank bottoms, and TetraEthyl Lead (TEL) bottoms until February 2013. In 2013, once the landfarm became inactive, a NJDPES Permit (#NJG0225720) was obtained regarding the pumping of leachate from the landfarm. The leachate is treated via a bank of six particulate bag filters followed by metals treatment via two Metsorb filter canisters, with the final stage of treatment including activated carbon filtration prior to discharge to the Arthur Kill via the North drainage ditch. Six monitoring wells were initially utilized to assess groundwater conditions for the No. 1 Landfarm. However, the monitoring well network was expanded in October 2012 to include additional Site monitoring wells. The monitoring wells will be sampled on a quarterly basis until the landfarm is officially closed. In addition to the groundwater sampling requirements, there are also supplementary annual sampling requirements which include the collection of a leachate sample, collection of samples from the two landfarm lysimeters, and the collection of three soil samples from randomly installed soil cores. Soil samples were collected from 2001 through 2012 as part of permit requirements and landfarm closure activities. Exceedances of the NJ Soil Remediation Standards were detected in the soil samples for VOCs, SVOCs, and metals. To address the soil impacts, the remedial strategy will include both institutional and engineering controls consisting of a deed restriction, groundwater CEA, and a cap. Post-closure groundwater monitoring requirements will be specified in the remedial action permit.
- Aeration Basins Three aeration basins were utilized for wastewater treatment between 1974 and 1985. The synthetically lined aeration basins were used for biological treatment of process wastewater and stormwater. The aeration basins were closed in accordance with a February 1987 Closure plan. The basins were filled and capped in 2014 with a one foot soil layer and six inches of top soil. Five monitoring wells are sampled annually to assess groundwater impacts attributed to the aeration basins.
- Former Underground Storage Tank (UST) Area In 1986, a 500-gallon UST utilized for the temporary storage of water drained from adjacent aboveground bulk petroleum storage tanks was removed and impacted soil and groundwater encountered. The soil and groundwater investigation of the area is currently in process.
- o Former Container Storage Area The former container storage area (hazardous waste storage permit No.1225L1HP01) is located on the southwestern portion of the property between the Truck Loading Rack and the Detention Basin. This is the only RCRA regulated former container storage area on the Site. EPA Envirofacts database currently lists two RCRA regulated container storage areas; however, both areas refer to the same area (identified as the Former Container Storage Area, Container Storage Pad, Hazardous Waste Storage Area, and/or AOC 8). The permit for the waste storage pad expired on March 3, 1997. In early 1992, this area was proposed to be utilized as additional space for hazardous waste storage. Hess subsequently chose in 1996 not to renew the existing permit or to expand the area. The existing container storage pad was reported to be in good condition with no visible staining. Also, there are no reports of hazardous materials having been spilled on the pad and/or stored for greater than 90 days in the area. The

NJDEP granted closure for the existing hazardous waste storage area in a letter dated January 22, 1997, indicating that applicable closure requirements were met. Soil and groundwater impacts in this area of the Site have been extensively investigated as part of the investigation of the Former Container Storage Area (AOC 8), the Truck Loading Rack (AOC 10), and the Detention Basin (AOC 12). Both soil and groundwater impacts are present in the area. Additional surficial soil delineation is required to delineate PCB impacts detected over the NJ Non-Residential Soil Standard and will be proposed in either an AOC specific RIW or the Sitewide RIW. Once soil delineation is complete, remediation will consist of isolated excavations, installation of an engineering control, and establishment of institutional controls.

AOC Summary

As part of the Site's ISRA reporting requirements, a Preliminary Assessment (PA) and Site Investigation (SI) was conducted and a PA/SI report submitted to the NJDEP in November 2015. The PA/SI identified 117 AOCs for the Site, of which 63 AOCs required additional investigation (Figure 4). A Case Inventory Document (CID) which summarizes all AOCs is included as Attachment 1.

Historic Spills Summary

There have been 104 documented releases reported for the Site. A full list of spills is included as **Attachment 2**. Historic spills are being addressed as part of the investigation and remediation of Site AOCs that are co-located or adjacent to the historic spill locations. As part of site closure activities, all historic spills will be investigated and remediated (if necessary) and closed via a Response Action Outcome (RAO).

<u>Definition of Environmental Indicators (for the RCRA Corrective Action)</u>

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" El determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and

do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

El Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"** above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	Rationale/Key Contaminants
				VOCs, Metals, SVOCs, 1,4-dioxane,
Groundwater	X			Isolated areas of LNAPL
Air (indoors) ²		X		
Surface Soil (e.g.,<2 ft)	X			VOCs, Metals, SVOCs, EPH
Surface Water	X			Metals, SVOCs
Sediment	X	<u> </u>		Exceed Ecological Screening Criteria
Subsurface Soil (e.g.,>2 ft)	X	<u> </u>		VOCs, Metals, EPH, SVOCs
Air (outdoors)		X		
citing approduction demonstrated approduction of the determination of th	priate "leving that the hy media) ted" media rmination supportin	vels," and r nese "levels – continue um, citing a that the m g documen	eferencir " are not after ide appropria edium co tation.	r "YE," status code after providing or ng sufficient supporting documentation exceeded. Intifying key contaminants in each ate "levels" (or provide an explanation ould pose an unacceptable risk) and and enter "IN" status code.

Rationale and Reference(s):

Analytical Results Summary

An extensive amount of analytical data has been generated as part of facility operations and from the closure of the refinery and investigation of the facility. Historic data has been considered in the preparation of this report. However, the most recent data has been the main focus of the evaluation in that it offers the most accurate picture of current conditions. Currently, quarterly groundwater sampling

is conducted for the three landfarms and annual groundwater sampling is conducted to address the remaining Site AOCs.

Therefore, the main analytical results being evaluated include the following: 2020 groundwater gauging results, 2019 annual groundwater sampling results, 2020 quarterly landfarm groundwater sampling results, 2010, 2016 and 2020 vapor intrusion investigation results, the 2014-2015 soil analytical results collected as part of the Site Investigation, and 2018-2019 AOC specific Remedial Investigation results for AOC 10 – Truck Loading Rack and AOC 12 – Detention Basin and Smith Creek.

Delineation is not complete for soil or groundwater at the Site. Several AOC specific RIW reports are in progress and will be submitted, which will include the necessary tasks to complete delineation.

Analytical results have been evaluated in relation to the NJ Soil Remediation Standards (NJSRS), NJ Default Impact to Groundwater Criteria (IGW), NJ Non-Residential Indoor Air Screening Levels (NRIASL), NJ Groundwater Quality Standards (GWQS), NJ Surface Water Quality Standards – Human Health (NJSWQS), and NJ Ecological Sediment Screening Criteria.

LNAPL

Isolated areas of LNAPL on the Site have decreased significantly since active product recovery began in November 1998. As LNAPL levels decreased in Site monitoring wells, LNAPL product recovery also decreased. Therefore, the LNAPL pumping events were discontinued and only passive recovery methods are utilized currently. Site monitoring wells are gauged on a monthly basis. Interim Remedial Measures (IRM) implemented to date have focused on LNAPL stabilization and recovery.

Groundwater gauging is currently conducted monthly at thirty (30) monitoring wells (PL-1RR, PL-2, PL-3R, PL-4RR, PL-5R, PL-6RR, PL-7, PL-8R, PL-9R, TF-1, TF-2, TF-3, TM-6R, TM-7, TR-1R, TR-2R, TR-3RR, TR-4R, TR-4D, TR-4DD, TR-5, TR-6, TR-6D, FA-1, FA-2, FA-3, FA-4, FA-5, FA-6, and FA-7), two (2) recovery sumps (TR-Sump-1, TR-Sump-2), the interceptor trench, and six (6) surface water gauges (DB-SW, L1-SW, LN-SW, SC-SG-1, SC-SG-1A, SC-SG-2). Historically, only twenty-three (23) monitoring wells were gauged on a monthly basis. Seven (7) new monitoring wells, that were installed as part of the investigation of AOC 103 – Fire Pits / Fire Training Area, have been included in the group of wells gauged on a monthly basis.

During the June 2020 event, LNAPL was measured in monitoring well PL-5R (0.2ft) and the interceptor trench. Currently, only passive LNAPL recovery methods are being utilized. Absorbent booms are placed in impacted wells and replaced as necessary. All spent booms are placed in a 55-gallon drum staged on-site. Once at capacity, the drum is removed from the HC-PR site and disposed of at a licensed waste disposal facility.

See Attachment 3 which includes a table (**Table 3-1**) depicting historic and current LNAPL levels. Groundwater gauging results are included as **Table 3-2**. A Remedial Investigation Workplan is currently in process to address all the Tank Fields on Site. Delineation of any observed LNAPL in monitoring wells within or adjacent to the Tank Fields will be proposed in the Tank Fields RIW. The CA 725 will be updated to include LNAPL extent and recovery as the various Remedial Investigations to be conducted across the Site are completed.

Soil

As part of investigation activities for various AOCs, multiple soil samples have been collected at the Site. Compounds associated with historic operations and compounds typically associated with historic fill were detected in soil samples at concentrations that exceed the NJSRS. These compounds include VOCs, BNs, metals, and petroleum hydrocarbons (EPH).

Several AOC specific Remedial Investigation Workplan (RIW) reports are in process. These RIW reports recommend additional soil samples to delineate known impacted areas of soil and to identify any source material that is continuing to impact Site groundwater. Analytical results, both figures and tables, obtained from the 2014-2015 SI are included as **Attachment 4**. In addition, analytical results from the 2018 and 2019 RI activities conducted to address AOC 10 – Truck Loading Rack are also included in **Attachment 4**.

The following is a brief summary of the compounds and concentrations detected in subsurface soil at the Site. Figures depicting both surficial and subsurface soil impacts are included in **Attachment 4**.

COMPOUND	CAS NUMBER	NJDEP Non-Res Soil Standard	MAXIMUM CONCENTRATION (PPM)
Total EPH	CASID30101	Calculated	62,500
		standard	
	Volatile Organic Co	mpounds	
Benzene	71-43-2	5	31.4
Trichloroethene	79-01-6	10	10.2
Tetrachloroethane	127-18-4	1500	1590
1,2,4-Trichlorobenzene	120-82-1	820	2510
1,4-Dichlorobenzene	92-87-5	13	567
	Base Neutral Comp	ounds	
Benzo(a)pyrene	50-32-8	2	3.7
Naphthalene	91-20-3	17	194
	Metals		
Arsenic	7440-38-2	19	232
Lead	7439-92-1	800	1070

Surficial Soil

Surficial soil analytical results from 1993 through 2019 were reviewed for the Site. The following table summarizes the maximum concentrations of compounds detected in comparison to the NJ Non-Residential Soil Remediation Standard in surficial soil (0 -2 feet) at the Site. As additional analytical data is generated as part of Site investigation activities, an evaluation will be made regarding the remedy for addressing the surficial soil impacts. The remedial strategy will likely include a combination of isolated excavations, treatment, and the use of engineering and institutional controls. A figure depicting surficial soil exceedances and surface composition is included in **Attachment 4**.

COMPOUND	NON-RES NJSRS	SURFICIAL SOIL MAXIMUM CONCENTRATION (PPM)
EPH	Calculated	65519
Benzene	5	185
1,4-Dichlorobenzene	13	567
Benzo(a)pyrene	2	8.6
Naphthalene	17	194
PCBs	1	36.6
Arsenic	19	129
Acrolein	1	240
Acrylonitrile	3	240
Carbon Tetrachloride	4	6.7
Chloroform	2	3.8
1,2-Dichloroethane	3	6.7
1,2-Dichloropropane	5	14
Cis-1,3-Dichloropropylene	7	12
1,1,2,2-Tetrachloroethane	3	16
1,1,2-Trichloroethene	6	12
Vinyl Chloride	2	24
Trans-1,3-Dichloropropylene	7	24
Benzidine	0.7	39
Bis(2-Chloroethyl)Ether	2	5.1
3,3-Dichlorobenzidine	4	14.8
2,4-Dinitrotouene	3	5.1
1,2-Diphenylhydrazine	2	9
Hexachlorobenzene	1	1.7
N-Nitroso-Di-n-propylamine	0.3	9

Historic Fill Impacts

As presented in the 2015 Site Investigation Report, the property was developed with the placement of anthropogenically impacted soil (originating from off-site locations) upon topographically lower land, which was primarily wetlands. The source locations are for the most part unknown, although dredged material from the adjacent Arthur Kill Shipping Channel has been historically placed upon the site. The NJDEP has acknowledged the introduction of off-site materials onto the site in its state database.

The NJDEP has recognized and acknowledged that two contaminant suites are inherent with historic fill material. The suites are metals and base neutrals, especially its sub-set PAHs. Historic soil and groundwater sampling have documented a presence of metals, in many instances at levels above

applicable SRS and GWQS. With the possible exception of lead, the other metals that have been detected are not attributed to past on-site operations and are likely associated with the underlying historic fill material. To a lesser extent, BN and PAHs have been detected site-wide, with particular sampling locations also having concentrations above applicable SRS and GWQS. Although associated with historic fill material, it is possible that the BN and PAH occurrences could also be associated with on-site operations. Evidence that suggests a fill material origin for elevated BN and PAH levels includes contamination encountered at depth, the lack of a vertical contaminant pathway, and the samples collected from the documented fill material stratum, all of which are documented in the soil logs. Further supporting evidence includes the random occurrence of PCB compounds with the metals and/or BN compounds at non-electrical operation locations. An example of a location identified as having fill material contaminants is evidenced by the soil and groundwater sampling data associated with the former vacant rail lines (Vacant Land North/AOC-63). This area was developed to accommodate railroad use for the adjacent offsite Coal Docks and was never utilized by Hess for its operations. Regardless of the origin of soil impacts on the Site, soil impacts will be addressed during Site remediation through a combination of isolated excavations, in situ soil treatment, and the use of engineering and institutional controls.

Groundwater

According to the NJ GeoWeb GIS system, the Site hydrology consists of the Potomac-Raritan-Magothy, Brunswick, and Lockatong aquifers which are NJDEP Class 2A aquifers. The majority of the Site is underlain by the Potomac-Raritan Magothy aquifer. The most north/northeast portions of the Site, located near the intersection of Cliff Road and the Port Reading Railroad, are underlain by the Brunswick and Lockatong aquifers.

A site-wide groundwater gauging event was conducted in 2020. Shallow groundwater flow was determined to be towards the Detention Basin in the northern and western portions of the site, to the east and towards the Arthur Kill in the central portion of the site, and away from the Detention Basin in the southern portion of the site. This is generally consistent with previous events.

Groundwater flow will continue to be monitored as part of future gauging events. Groundwater gauging tables are included in **Attachment 3**. Groundwater elevation data indicates groundwater flow in the shallow and intermediate aquifers to be toward the south and east toward the Smith Creek. Deep groundwater flow appears to be towards the southeast. Groundwater contour maps are included in **Attachment 5**.

During the Second and Third Quarters 2014, the qualitative portion of the Facility Tidal Study was completed, utilizing a total of twenty-five wells and three surface water gauges. These were gauged at regular intervals and compared with regional surface water tidal fluctuations. Several wells located within or near the filled Smith Creek stream channels were included to determine if a greater extent of tidal influence existed. Gauging data is included as Table 3-2. Predicted, preliminary, and verified tide data from nearby National Oceanographic and Atmospheric Administration (NOAA) tide stations at Bergen Point West Reach (NJ Station ID 8519483) and Sandy Hook (NJ Station 8531680) were evaluated for accuracy and the tidal predictions compared to the predictions for the Woodbridge Creek 0.8 Nautical Miles above Entrance (NJ Station ID 8531156). Tidal data was compared to the recorded depths to water in the monitoring well.

In an effort to better understand site hydrogeology, and to aid in contaminant modeling, falling head and rising head slug testing was completed at eight monitoring wells throughout the site on December 30, 2014. The Bouwer-Rice Method was utilized to determine the k value of the unconfined aquifer. The k value ranged from 0.874 feet per day to 35.73 feet per day.

Based on the available well gauging data, groundwater in shallow, intermediate and deep monitoring wells, appear to be influenced tidally. An updated Tidal Study is currently being completed on the Site (August 2020) and the CA725 will be updated based on observations from the 2020 Tidal Study.

Groundwater at the Site is impacted from historic operations and releases as well as from the presence of historic fill on the Site. Groundwater is impacted with metals, Volatile Organic Compounds (VOCs), Base-Neutrals (BNs), and polyfluroalkyl substances (PFAS). Site-wide historic fill material is the likely origin for the metals, and potentially the BN/PAH impacts detected in the groundwater. Groundwater contaminant Isopleth maps are included in **Attachment 5**.

CVOCs

Chlorinated VOCs (CVOCs) have been detected in the groundwater beneath the site. The major CVOC occurrence is associated with the Administration Building (AOC-11a). The building has a pre-Hess origin and was formerly occupied by the Petroleum Solvents Corporation between 1947 and 1957. The CVOC suite ranges from the primary compound PCE through the complete ethene transformation pathway to vinyl chloride. The contaminant footprint trends southward beneath the Detention Basin. A secondary CVOC plume with the primary component of 1,1,1-trichloroethane (TCA) was also detected. The TCA groundwater plume extends northward.

BTEX

Benzene, toluene, ethylbenzene and xylenes (BTEX), compounds that are commonly associated with petroleum products, have also been detected in Site groundwater. Methyl Tert Butyl Ether (MTBE) and Tertiary Butyl A (TBA), commonly associated with gasoline, have also been detected in the Site groundwater. In general, the BTEX, MTBE, and TBA occurrences coincide with documented historic spill locations, former petroleum refining operations, consolidated refinery waste, and product storage.

PFAS

Aqueous Film Forming Foams (AFFF) were developed and began being used as fire suppressants for fire training/fire-fighting at military bases, airports, and oil refineries/terminals in the 1960s. AFFFs contain a mixture of PFAS, which have been identified as emerging contaminants of concern. Based on a review of historic aerials and input from the former Hess Fire Chief and former Health and Safety Specialist, the northeast corner of the Site was occupied by fire pits that were utilized for the training of fire and safety personnel from approximately the 1960's to the 1980's. Fires were set using different accelerants in order to determine the correct fire suppressant to use.

In January 2020, seven (7) monitoring wells were installed in the former fire training area (AOC 103) located within the northeastern corner of the Site. The monitoring wells were sampled for PFAS utilizing modified EPA method 537. PFAS were detected at concentrations exceeding applicable standards in the groundwater samples collected from all monitoring wells. Based on the analytical results, additional groundwater delineation is required by the NJDEP and EPA to address PFAS impacts. The following table summarizes the results.

Client Sample ID:		NJ Groundwater	NJ Interim	FA-1	FA-2	FA-3	FA-4	FA-5	FA-6	FA-7	FB
Lab Sample ID:		Criteria (NJAC	Groundwater	JD2525-1A	JD2525-2A	JD2525-3A	JD2525-4A	JD2525-5A	JD2525-6A	JD2525-7A	JD2525-8A
Date Sampled:		7:9C 9/4/18)1	Criteria (NJAC	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020	1/29/2020
Matrix:			7-00-4/47/4012	2	Ground Water	Field Blank Water					
MS Semi-volatiles (EPA 537M B	MS Semi-volatiles (EPA 537M BYID)										
Perfluorohexanoic acid	ug/l			3.79	0.0095	0.0445	0.731	0.0165	1.91	0.112	ND (0.00086)
Perfluoroheptanoic acid	ug/l	*	-	1.82	0.0049	0.0091	0.1	0.0088	0.224	0.0111	ND (0.00086)
Perfluorooctanoic acid	ug/l		0.01	0.89	0.004	0.0169	0.221	0.0087	0.276	0.0189	ND (0.00086)
Perfluorononanoic acid	ug/l	0.013	-:	ND (0.0086)	0.0035	0.0062	ND (0.0086)	0.0274 J	ND (0.086)	0.004	ND (0.00086)
Perfluorodecanoic acid	ug/l		-:	ND (0.0086)	0.0029 J	0.0044	ND (0.0086)	0.0036	ND (0.0086)	0.0029 J	ND (0.00086)
Perfluoroundecanoic acid	ug/l	2		ND (0.0086)	ND (0.00086)	ND (0.0043)	ND (0.0086)	ND (0.0086)	0.176	0.0061	ND (0.00086)
Perfluorododecanoic acid	ug/l	2	2	ND (0.013)	ND (0.0013)	ND (0.0065)	ND (0.13)	ND (0.013)	ND (0.013)	ND (0.0013)	ND (0.0013)
Perfluorotridecanoic acid	ug/l	9		ND (0.0086)	ND (0.00086)	ND (0.0043)	ND (0.0086)	ND (0.00086)	ND (0.0086)	ND (0.00086)	ND (0.00086)
Perfluorotetradecanoic acid	ug/l	- 5		ND (0.0086)	ND (0.00086)	ND (0.0043)	ND (0.0086)	ND (0.00086)	ND (0.0086)	ND (0.00086)	ND (0.00086)
Perfluorobutanesulfonic acid	ug/l	-	-	2.76	0.0047	0.025	0.437	0.0083	1.02	0.088	ND (0.00086)
Perfluorohexanesulfonic acid	ug/l		-	58.4	0.0414	0.253	5.73	0.115	7.29	0.79	ND (0.00086)
Perfluorooctanesulfonic acid	ug/l	2	0.01	4.45	0.17	0.868	33.8	0.421	61.7	1.96	ND (0.0013)
MeFOSAA	ug/l	2	-	ND (0.034)	ND (0.0034)	ND (0.0034)	ND (0.034)	ND (0.034)	ND (0.034)	ND (0.0034)	ND (0.0034)
	ug/l	1		ND (0.034)	ND (0.0034)	ND (0.0034)	ND (0.034)	ND (0.034)	ND (0.034)	ND (0.0034)	ND (0.0034)

Off-Site Groundwater Investigation

Four (4) clusters of off-site monitoring wells were installed on the adjacent PSEG property in November 2019 as part of the investigation of AOC 10 and AOC 12. Low levels of several VOCs were detected in the groundwater samples collected from the off-site wells at concentrations slightly exceeding the NJ GWQS. Therefore, additional off-site groundwater delineation is necessary. Additional monitoring wells are recommended and are being proposed in Supplemental RIWs for AOC 10 – Truck Loading Rack and AOC 12 – Detention Basin and Smith Creek. The RIWs are currently being prepared and are due for submittal in the fall of 2020.

Groundwater Delineation

Groundwater delineation is not complete at the Site for multiple AOCs. Several AOC specific RIWs were submitted in the Second and Third Quarters of 2020. However, based upon subsequent discussions with the NJDEP and USEPA regarding supplying additional information, the RIWs are currently being revised to incorporate the requested additional information. The following AOC specific RIWs are currently being revised:

- AOC 10 Truck Loading Rack Area & AOC 57 Day Tankfield
- AOC 12 Smith Creek & Detention Basin

Former Refining Area Remediation Management Unit

- AOC-9 Alkylation Unit (Sewer Line)
- AOC-18 Dimersol Unit
- AOC-20a T1600-A and T-1600B Transformers

- AOC-20b T510-A and T510-B Transformers
- AOC-25 X-1950A and X-1950B (Alkylation Neutralization Basin
- AOC-26 D-1104 (MEA Sump)
- AOC-27 EADC Sump
- AOC-30 Sulfur Pit
- AOC-32 X-1951 (SRU Neutralization Basin)
- AOC-39 EADC Truck Unloading Area
- AOC- 40 Fresh Acid Unloading Area
- AOC-45 Former Sulfur Recovery Unit Truck Loading Rack
- AOC-58 Former Chemical Storage Area
- AOC-60 Avenue B Tank Field
- AOC-80 Former Crude Topping Unit
- AOC-88 Compressor Building
- AOC-89 Cracking Tower
- AOC-92 TK-701A and TK-701B
- AOC-117 Diesel Powered Emergency Generator Millwright's Shop

Former Marine Loading Dock Area

- AOC 16b Marine Terminal Loading Rack Area
- AOC 63 Former Rail Lines (Vacant Land North)
- AOC 85 Marine VRU/TK-4701 and TK-4801
- AOC 100 Laydown Yard
- AOC 102 Vacant Land (South)
- AOC 116 Diesel Powered Emergency Generator South Dock

Tankfields

- AOC 6 HSWA UST,
- AOC 14a First Tank Field,
- AOC 15a, 15b, & 15c Former UST Areas,
- AOC 37 No. 2 Oil Detergent and Additive Truck Unloading Area,
- AOC 53 Second Tank Field,
- AOC 54 Third Tank Field,
- AOC 55 Fourth Tank Field,
- AOC 56 Second Reserve Tank Field,
- AOC 113 Second Reserve Tank Field Oil/Water Separator

2019 Annual Groundwater Sampling Event

The 2019 groundwater analytical results, figures and tables, as well as groundwater contour maps are included as **Attachment 5**. The following is a brief summary of the maximum concentrations of COCs detected during the 2019 groundwater sampling event.

COMPOUND	CAS	GWQS	Maximum Concentration (ppb)
	NUMBER		2019 Annual GW Event
	Volatile Organ	ic Compounds	<u></u>
Benzene	71-43-2	1	3610
Tetrachloroethane	127-18-4	1	628
Trichloroethene	79-01-6	1	4880
Ethylbenzene	100-41-4	700	6640
Toluene	108-88-3	600	606
Total xylenes	1330-20-7	1000	19100
1,2-Dichlorobenzene	95-50-1	600	4570
1,3-Dichlorobenzene	541-73-1	600	999
1,4-Dichlorobenzene	106-46-7	75	5780
1,1-Dichloroethene	75-34-3	50	12500
Cis-1,2-Dichloroethene	156-59-2	70	2670
1,1-Dichloroethane	75-34-3	50	1200
1,2-Dichloroethane	107-06-2	2	30.2
1,2-Dichloropropane	78-87-5	1	63.9
Vinyl chloride	75-01-4	1	117
1,1,1-Trichloroethane	71-55-6	30	14300
1,1,2-Trichloroethane	79-00-5	3	24.5
1,2,4-Trichlorobenzene	120-82-1	9	484
MTBE	1634-04-4	70	133000
Tert Butyl Alcohol	75-65-0	100	75700
Chlorobenzene	108-90-7	50	3320
	Semi-Volatile (Organic Compou	ınds
Benzo(a)anthracene	56-55-3	0.1	1.12
Benzo(a)pyrene	50-32-8	0.1	0.5
Benzo(b)fluoranthene	205-99-2	0.2	0.683
Indeno(1,2,3-cd)pyrene	193-39-5	0.2	0.213
1,4-Dioxane	123-91-1	0.4	4180
	Metals		
Arsenic	7440-38-2	3	104
Lead	7439-92-1	5	119

Vapor Intrusion

Due to the presence of VOCs in the groundwater at the Site in the vicinity of the administration building, vapor intrusion investigations were conducted in 2010, 2016, and 2020. The following sections summarize the VI investigation activities.

2010 Vapor Intrusion Investigation Summary

In November 2010, two sub-slab soil gas samples, four indoor air samples, and two ambient air samples were collected as part of the vapor intrusion investigation for the administration building. Chloroform and 1,1-Dichloroehane were detected in one sub slab sample at concentrations which exceeded the non-residential soil gas screening levels. No compounds were detected in the indoor air or ambient air samples at concentrations exceeding the NRIASL

The 2010 vapor intrusion analytical results, figures and tables, are included as **Attachment 6**.

2016 Vapor Intrusion Sampling Summary

Small basement areas are present under the northern and southern ends of the Administration Building. Subslab soil gas samples were collected strictly from the northern end of the building since the basement located on the southern side was flooded at the time of sampling. It is our understanding that there are no basements/crawlspaces under the middle portion of the building.

In January 2016, two (2) sub-slab soil gas samples and two (2) indoor air samples were collected and analyzed. The indoor air samples were collected in the northern and southern basements beneath the building. No compounds were detected over the NJ Non-Residential Soil Gas Screening Levels. The compound 1,2 Dibromoethane is highlighted on Table 6-1 because the laboratory method detection limit of 40 ug/m' exceeds the standard of 38 ug/m'. However, this compound is not a contaminant of concern for the Administration Building. This is not a compound of concern because 1,2 Dibromoethane was not detected in the indoor air or in groundwater samples collected as part of the investigation of the administration building. No compounds were detected over the NRIASL in the two (2) indoor air samples collected from the basement.

The 2016 vapor intrusion analytical results, figures and tables, are included as **Attachment 6**.

2020 Vapor Intrusion Sampling Summary

Due to the age of the building, as-built diagrams could not be located for the administration building to evaluate potential preferential vapor pathways in the building. Therefore, in August 2020, five (5) indoor air samples and one (1) ambient air sample were collected and analyzed for VOCs utilizing EPA TO-15 method. The indoor air samples were collected on the first floor of the administration building. A figure depicting the sample locations is included in **Attachment 6**.

The analytical results for the indoor air and the ambient air samples were all below the NRIASL.

The 2020 vapor intrusion analytical results, figures and tables, are included as **Attachment 6**.

Therefore, based on both historic and the current sampling, vapor intrusion is currently not an issue at the Site.

As additional soil analytical results, groundwater analytical results become available, further evaluations will be made as to whether additional sub-slab or indoor air sampling will be conducted.

Surface Water and Sediment

The following is a brief description of the two surface water bodies currently and historically present on the Site; Smith Creek and the Detention Basin. HC-PR began operations in 1958. Based on a review of historic aerial photographs, it appears that the northern portion of Smith Creek and its tributaries were filled between 1954 and 1957. By 1963, only the southern portion of Smith Creek was present on the Site. Northern portions of the Creek were filled-in, excluding the northern drainage ditch. The detention basin present on the Site was created between 1966 and 1969. In 1972, Smith Creek appears to have been backfilled and does not appear on the aerial photograph and the detention basin is no longer directly connected to the off-site portion of Smith Creek. The detention basin has historically been utilized as a storm water retention pond to reduce runoff to nearby surface waters.

Based on information provided by NJDEP's Geoweb, Smith Creek is approximately 125-175 feet wide and approximately 5,000 feet long from where the creek begins until it eventually discharges into the Arthur Kill. Smith Creek is classified as a FW2-NT/SE3 waterway. The depth of Smith Creek is approximately 4 feet deep at high tide. Directly to the north of Smith Creek is a pond, also approximately 4 to 5 feet deep.

Currently, the closest off-sites surface water bodies are the Arthur Kill and Smith Creek.

An investigation of sediment and surface water was conducted for the on-site Detention Basin and offsite Smith Creek Pond and Smith Creek in 2018 and 2019. The following is a summary of the investigation results.

Surface Water

Detention Basin

In November 2018, surface water samples were collected from 12 locations in the detention basin at 3 depths (below the surface, middle of the water column, and base of water column). Surface water sample locations were selected biased toward inflows, outflows, or areas of observable impacts.

No VOCs or SVOCs were detected in the surface water samples collected from the detention basin. Arsenic, lead, and manganese were detected in one surface water sample at concentrations which exceed the NJ SWQS for human health. There were no exceedances in the remaining 35 surface water samples collected from the detention basin.

Smith Creek and Smith Creek Pond

In February and March 2019, surface water samples were collected from two locations in Smith Creek Pond and 21 locations in Smith Creek at three (3) depths (surface, middle, and bottom). Surface water sample locations in Smith Creek included nearshore locations and in the center of the waterway. Surface water samples could only be collected at high tide due to safety and access issues.

No VOCs or metals were detected at concentrations exceeding the NJ SWQS in the surface water samples collected from Smith Creek and Smith Creek pond. Only one SVOC, bis(2-ethylhexyl)phthalate), a common laboratory contaminant, was detected over the NJ SWQS in two (2) surface water samples.

Summary tables and figures depicting the surface water investigation results are included in **Attachment 7**.

Arthur Kill

The Arthur Kill is classified as a SE2 waterway. Surface water samples were not collected in the Arthur Kill. Monitoring wells TL-1, TL-2, TL-3, PER-7, and PER-8 are the wells located in the closest proximity to the Arthur Kill. Groundwater concentrations for arsenic, benzo(a)anthracene, and manganese exceed the NJ SWQS. Based on the surface water sample results collected from the Detention Basin and Smith Creek, it is unlikely that site operations or releases have impacted the Arthur Kill. However, additional surface water and sediment sampling will be proposed in the Arthur Kill pursuant to NJDEP and USEPA recommendations. Several RIWs are currently in process and include recommendations for additional sampling in the Arthur Kill. The CA725 will be updated once the supplemental RI work is completed.

Sediment

In November 2018, sediment samples were collected from 12 locations at the detention basin at multiple depths. These locations were selected based on the potential effects from historic spills, overland flow, and diffuse groundwater discharges. In February and March 2019, sediment samples were collected from 21 locations in Smith Creek and 2 locations in Smith Creek Pond. Sediment sample results were compared to the NJ Ecological Screening Criteria (ESC). Various VOCs, SVOCs, and metals had concentrations which exceeded the applicable ESC. However, based on the surface water results, low level sediment impacts are not acting as a source of surface water contamination.

Summary tables and figures depicting the sediment investigation results are included in Attachment 7.

Footnotes:

- ¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).
- ² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there complete pathways between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

<u>Summary Exposure Pathway Evaluation Table</u>

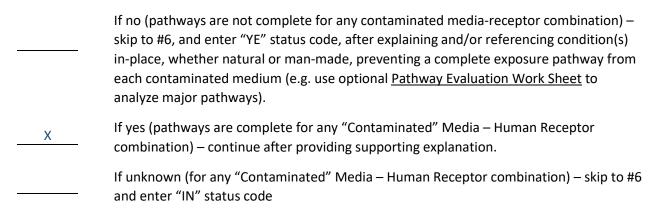
Potential **Human Receptors** (Under Current Conditions)

Contaminated Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	No	No	No	Yes			No
Air (indoors)		No		No	No		
Soil (surface, e.g., <2 ft)		No		Yes	No	No	No
Surface Water	No	No	No	Yes	No	No	
Sediment	No	No	No	No	No	No	
Soil (subsurface e.g., >2 ft)				Yes			No
Air (outdoors)		No		No			

Instructions for <u>Summary Exposure Pathway Evaluation Table</u>:

- 1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.
- 2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.



Rationale and Reference(s):

Groundwater and soil are impacted from former operations, historic releases, and the presence of historic fill. Surface water samples were collected from the Site detention basin and metals were detected in only one sample at concentrations in excess of NJSWQS. The remaining 35 surface water samples collected from the detention basin were below the NJSWQS. All surface water samples collected from Smith Creek Pond and Smith Creek were below NJSWQS. Pathways have been evaluated for all known contaminated media and a determination made whether there is in fact a complete pathway from the contamination to a human receptor.

Groundwater

Possible pathways for impacted groundwater to affect a human receptor would be through ingestion or through an indirect pathway such as ingestion of fish/shellfish obtained from adjacent surface water bodies (addressed in surface water section below). Regarding the ingestion pathway, the closest potable well is located approximately 3,200 feet west of the Site. The Bowtie pool has been permanently closed and the area slated for redevelopment, so the pool is no longer a potential receptor. A site visit was conducted to determine the status of the Bowtie pool and the pool is no longer present. Photographs of the current status of the pool are included in **Attachment 8**. Another possible exposure pathway for impacted groundwater is through direct contact. The only potential receptors who will have direct contact with Site groundwater are remedial contractors/consultants and construction workers.

Soil

Soil is impacted at the Site at levels less than two feet below the surface, as well as at depth. The only pathway for exposure to impacted soil would be through direct contact or inhalation. A figure depicting known soil impacts and current surface composition is included in **Attachment 4**. Based on this figure, there are areas of surficial impacts in several areas of the Site. However, most of the surficial impacts are located in tankfields or the landfarms which are restricted environments and there is no potential to come into direct contact with the surface impacts. However, there are surficial impacts in the former refinery

area which is exposed soil. The former refinery area is located in the main terminal area and can only be accessed by checking in with both the entrance guard and security tower. Therefore, only Site workers could potentially encounter the surficial impacts located in the former refinery area. Pending completion of the soil investigation and remediation in this area, Hess will issue a notification to Buckeye to ensure that all Buckeye personnel are aware of the surficial soil impacts in the area and that proper PPE is worn when working in the area.

Surface Water

There is one surface water body (detention basin) located on-site and the two (2) closest off-site surface water bodies are Smith Creek and the Arthur Kill. As summarized above, surface water samples were collected in both the onsite detention basin and adjacent Smith Creek and Smith Creek Pond. Only one surface water sample collected from the Site detention basin had metals concentrations above applicable standards. Site workers have minimal contact with the detention basin. Based on the level of expected contact and isolated impacts detected (one sample location), there is not an expected exposure pathway. The remaining surface water samples collected from the detention basin, Smith Creek Pond, and Smith Creek were all below NJSWQS. Smith Creek is classified as a FW2-NT/SE3 waterway. The Arthur Kill is classified as a SE2 waterway. This means that both waterways are designated for secondary contact recreational use, which means the potential for immersion or ingestion is low. In addition, both waterways have fish consumption advisories in place. Therefore, based on the analytical data, existing water classifications, and controls already in place; there is no potential exposure pathway.

The following fish consumption advisories are currently in place for the Arthur Kill and Smith Creek:

Species	General Population (2, 3)	High Risk Individual (2,3)	
Blue Crab	Do not eat or harvest (5)	Do not eat or harvest (5)	
Striped Bass	4 meals per year	Do not eat	
American Eel	4 meals per year	Do not eat	
White Perch	4 meals per year	Do not eat	
Atlantic Needlefish (6)	1 meal per month	Do not eat	
Rainbow Smelt (6)	1 meal per month	Do not eat	
Gizzard Shad (6)	Do not eat	Do not eat	
Bluefish	1 meal per month	Do not eat	
Summer Flounder (Fluke)	1 meal per month	Do not eat	
White Catfish	1 meal per year	Do not eat	

- (1) High-risk individuals include infants, children, pregnant women, nursing mothers and women of childbearing age.
- (2) One meal is defined as an eight-ounce serving
- (3) Eat only the fillet portions of the fish. Use proper trimming techniques to remove fat, and cooking methods that allow juices to drain from the fish (e.g., baking, broiling, frying, grilling, and steaming). See text for full description.
- (4) Sunfish includes bluegill, pumpkinseed, and redbreast sunfish.
- (5) No harvest means no taking or attempting to take any blue crabs from these waters.
- (6) Based on New York advisories

Photographs of the signage along Smith Creek are included in **Attachment 8**.

³Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**4 (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

If no (exposures cannot be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) – skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant".

If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) – continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

Rationale and Reference(s):

Complete exposure pathways were identified for potential contact between impacted groundwater and soil with remedial contractors/consultants and construction workers. Soil concentrations have been compared to the non-residential soil standards. The non-residential soil standards are based on a soil ingestion rate of 100 mg/day, to reflect the amount of soil an outdoor worker might be exposed to verses a typical indoor worker.

Groundwater concentrations have been compared to the NJ GWQS which are calculated based on the assumption of adults consuming two liters of water per day. Due to the assumptions used in calculating the standards which are based on regular contact/ingestion, actual exposure to impacted soil and groundwater at the site will be significantly lower in intensity, duration, and/or frequency for adult remediation contractors/consultants or construction workers. Contact will be limited and only occur during subsurface, invasive activities and not during the completion of any daily tasks.

In addition, there are protocols in place to ensure that there is no unacceptable risk associated with contact with impacted groundwater or soil. These controls consist of: Site Health and Safety Plan (HASP), 40-hour/8-hour refresher OSHA training for remedial contractors/consultants, proper use of Personal Protective Equipment (PPE), and task specific training. All invasive activities conducted at the Site must obtain a permit from the current facility owner/operator (Buckeye). The permit details all activities

necessary for the job and a Job Safety Analysis (JSA) is required with the permit. The JSA ensures that all relevant procedures have been reviewed and dictates the required PPE. All workers involved in performing the job are required to sign the JSA. Access to the Site is restricted and all personnel must check in with a guard upon entering the main site. The terminal portion of the Site is completely enclosed with a gate and all personnel must check in with the security tower prior to gaining access to the terminal portion of the Site.

All groundwater evacuated from monitoring wells will be placed in 55-gallon drums and disposed of by a licensed disposal company. Any impacted materials (used booms, PPE, etc) will also be placed in 55-gallon drums and disposed of by a licensed disposal company.

As additional analytical results become available, Hess will reassess any potential exposure scenarios for impacted Site media.

⁴ If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5.	Can the "signif	icant" exposures (identified in #4) be shown to be within acceptable limits?
		If yes (all "significant" exposures have been shown to be within acceptable limits) – continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g. a site-specific Human Health Risk Assessment).
		If no (there are current exposures that can be reasonably expected to be "unacceptable") – continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.
		If unknown (for any potentially "unacceptable" exposure) – continue and enter "IN" status code

Rationale and Reference(s):

Not Applicable – see rationale in Question 4.

6.	event code (CA	ropriate RCRIS status codes for the Current Human Exposures Under Control El A725), and obtain Supervisor (or appropriate Manager) signature and date on the on below (and attach appropriate supporting documentation as well as a map of
	<u>YE</u>	YE – Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures' are expected to be "Under Control" at the Hess Corporation – Port Reading facility, EPA ID # NJD04544583, located at 750 Cliff Road, Port Reading (Woodbridge Township), Middlesex County, NJ under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.
		NO – "Current Human Exposures" are NOT "Under Control."
		IN – More information is needed to make a determination.

Prepared by:	(signature)	Date 9/20 ho
ricparco by.	Sarai Vype, Earth Systems	1/63/600
Reviewed by.	(signature) of Achents A	Date 9/25/2020
	Digitally signed by ANDREW	
Approved by:	(signature) ANDREW PARK Date: 2020/09/25 16:00:29 -04:00	Date 9/25/2020
	Andy Path	
	Corrective Artain Section	
	Lend and Relievelopment Programs Branch	
	(And, Chemical, and Redevelopment Division	
	EPA Region 2	
Approved by:	(signature) Julah)	Date 9/28/20
	Rase Program Management Section	
	Land and Restroylopment Programs Branch	
	Land, Chemicals and Fedevelopment Division	
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Approved by:	(signature) Moffe Christ	Date 9/28/20
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Locations where References may be found:

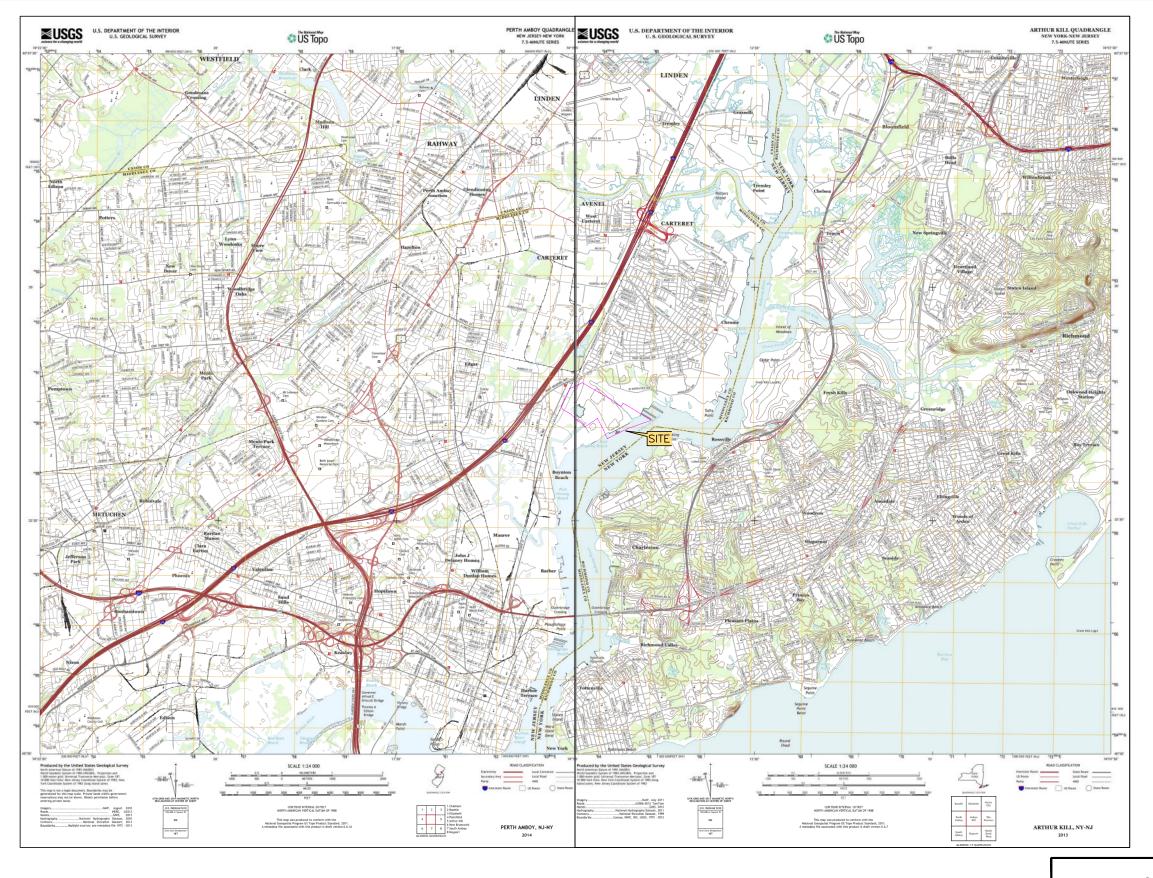
Attachment 1 – Case Inventory Document
Attachment 2 – Summary of Historic Spills
Attachment 3 – LNAPL/Groundwater Gauging Table
Attachment 4 – Soil Investigation Figures & Tables
Attachment 5 – Groundwater Investigation Figures & Tables
Attachment 6 – Vapor Intrusion Figures & Tables
Attachment 7 – Surface Water & Sediment Figures & Tables
Attachment 8 – Photographs (Bowtie Pool Complex & Fish Consumption Advisory Signage)

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FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

FIGURES

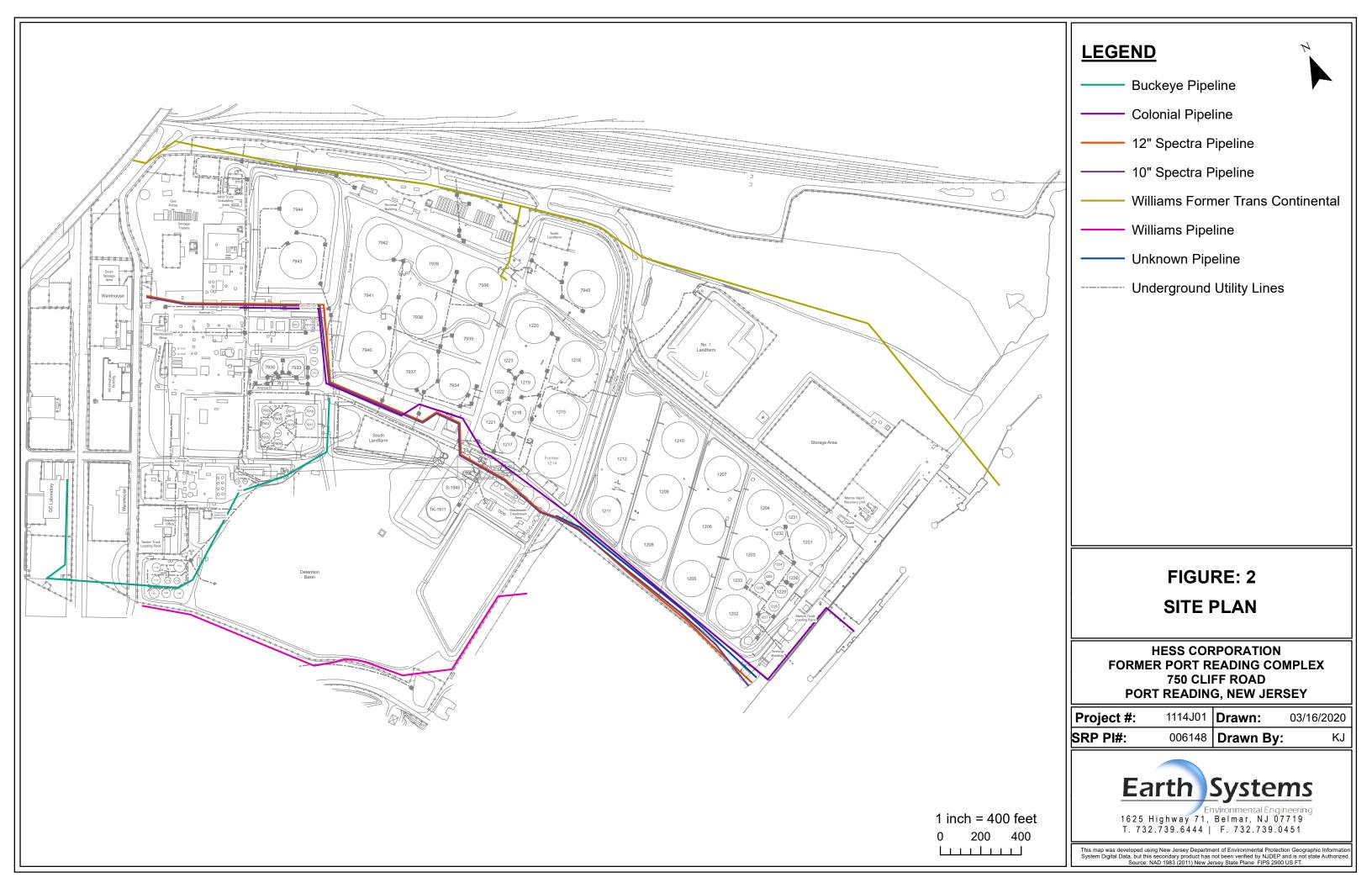


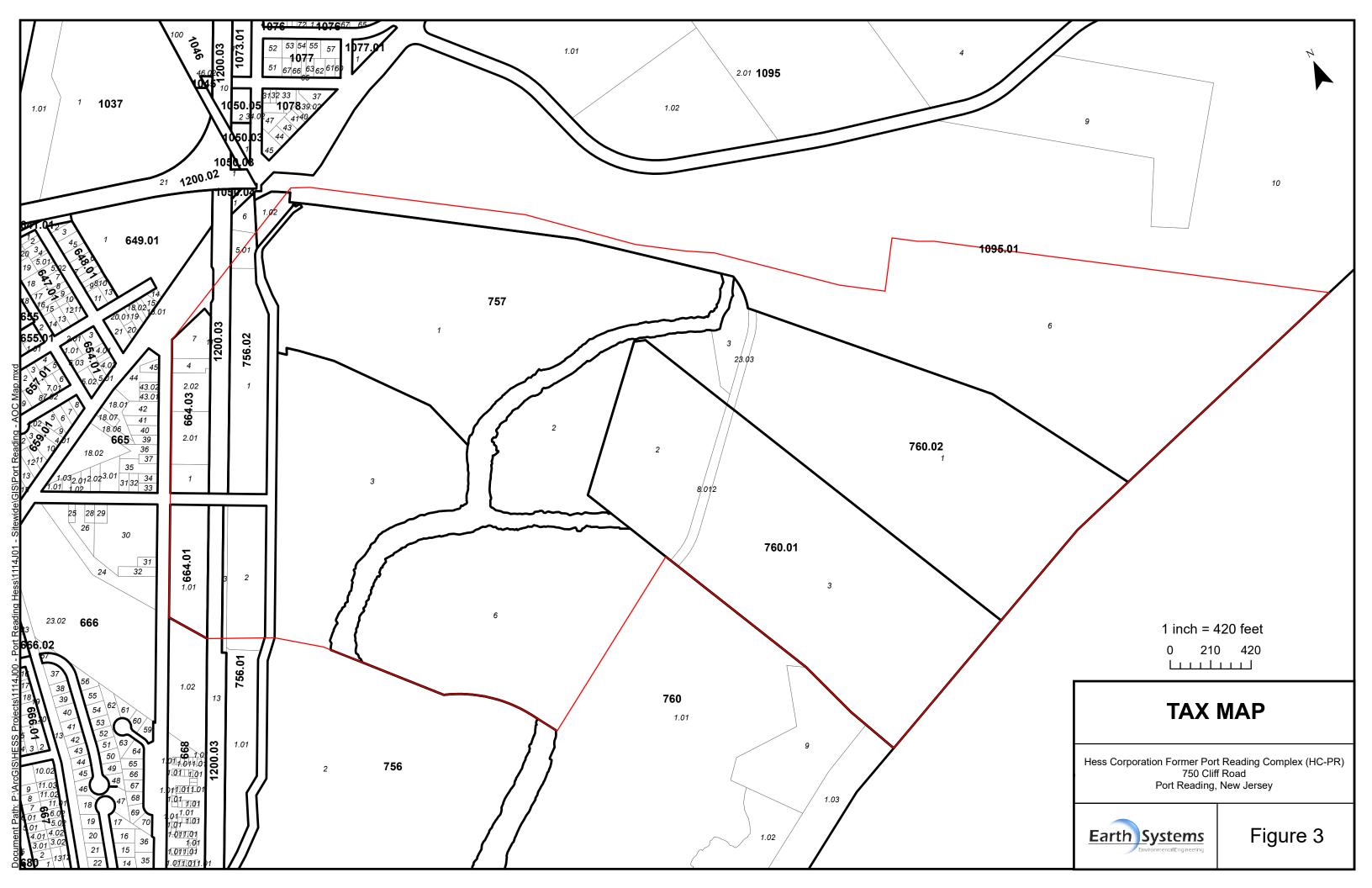
USGS MAP

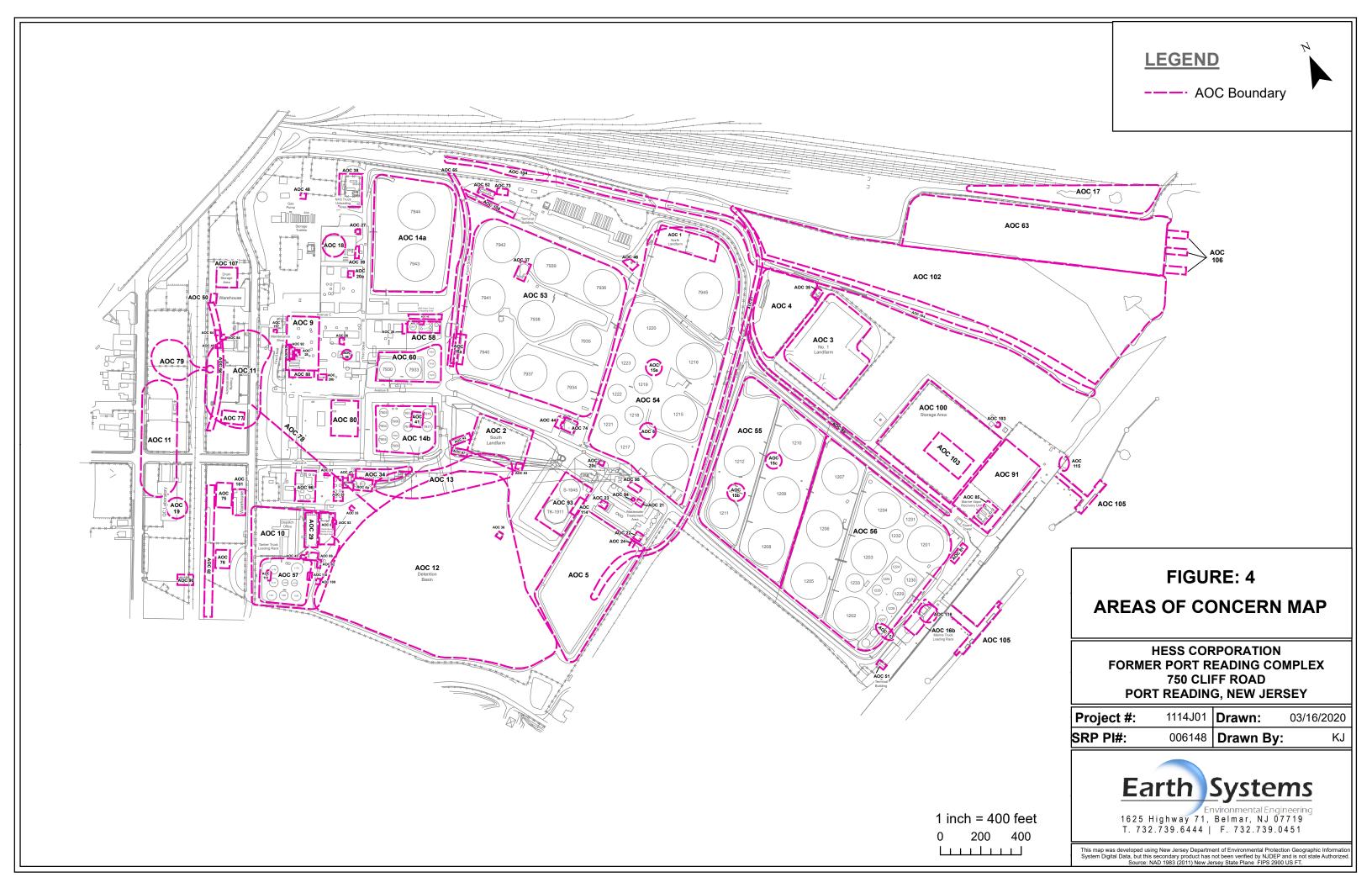
Hess Corporation Former Port Reading Complex (HC-PR) 750 Cliff Road Port Reading, New Jersey

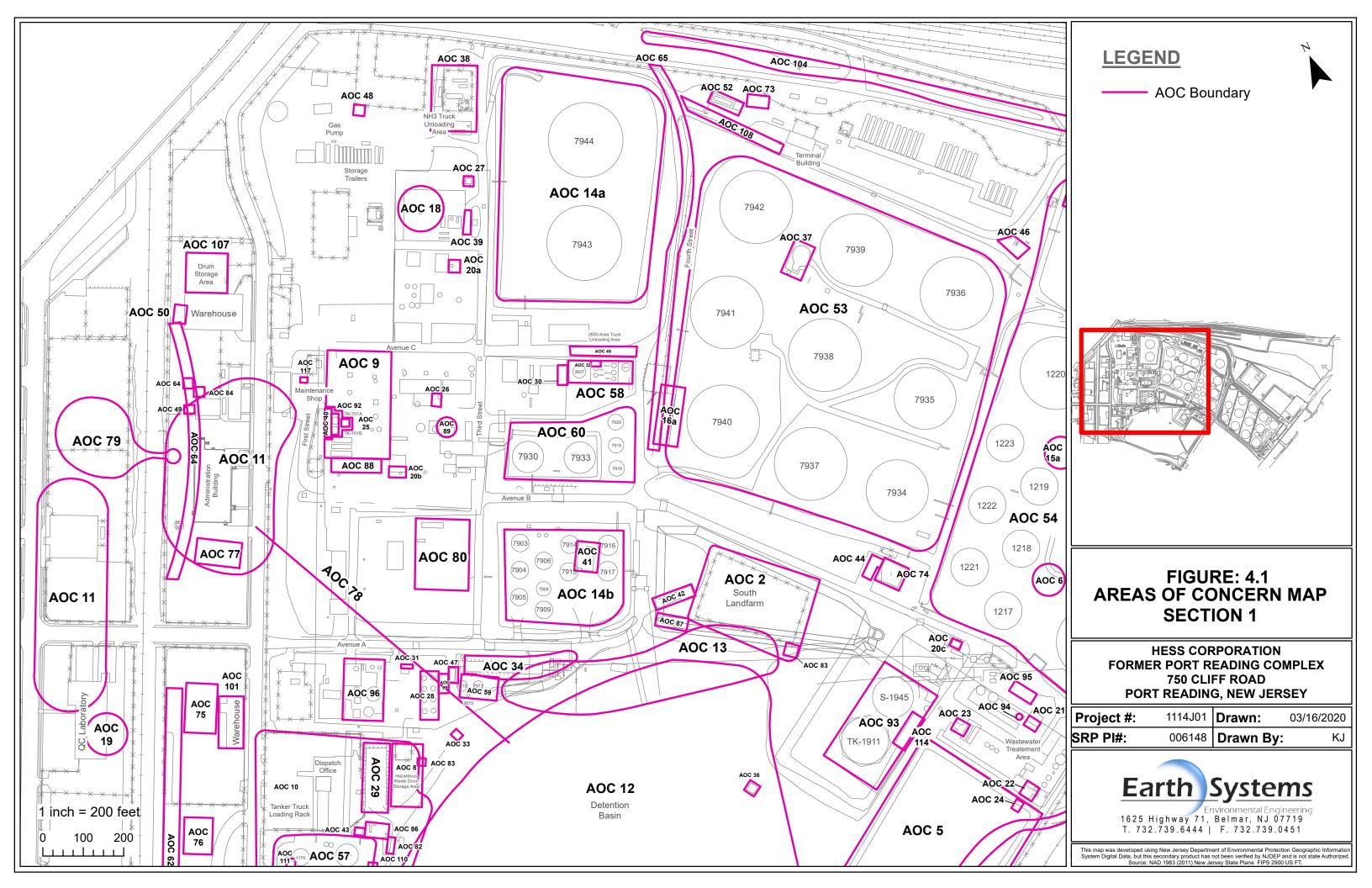


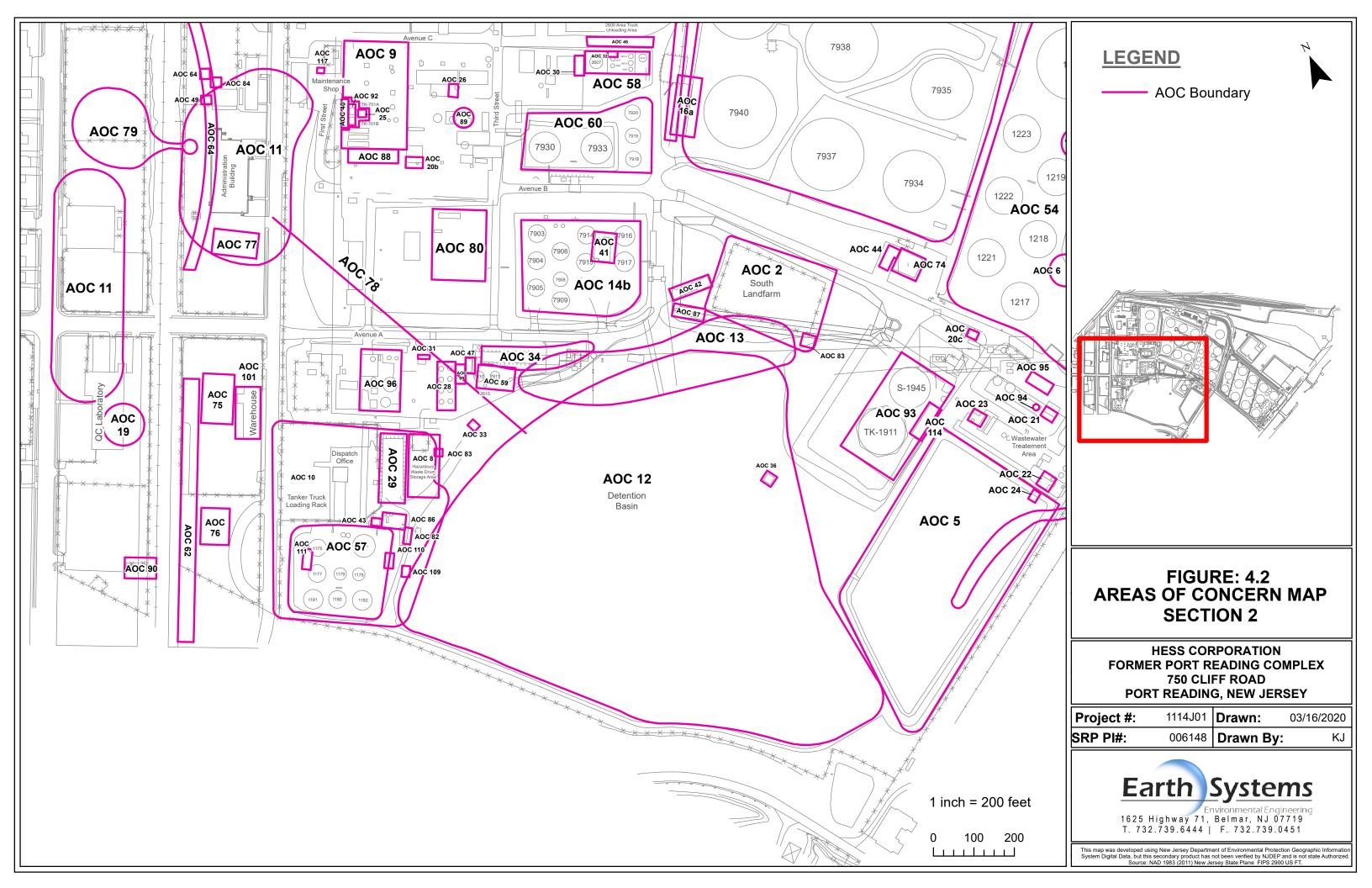
Figure 1

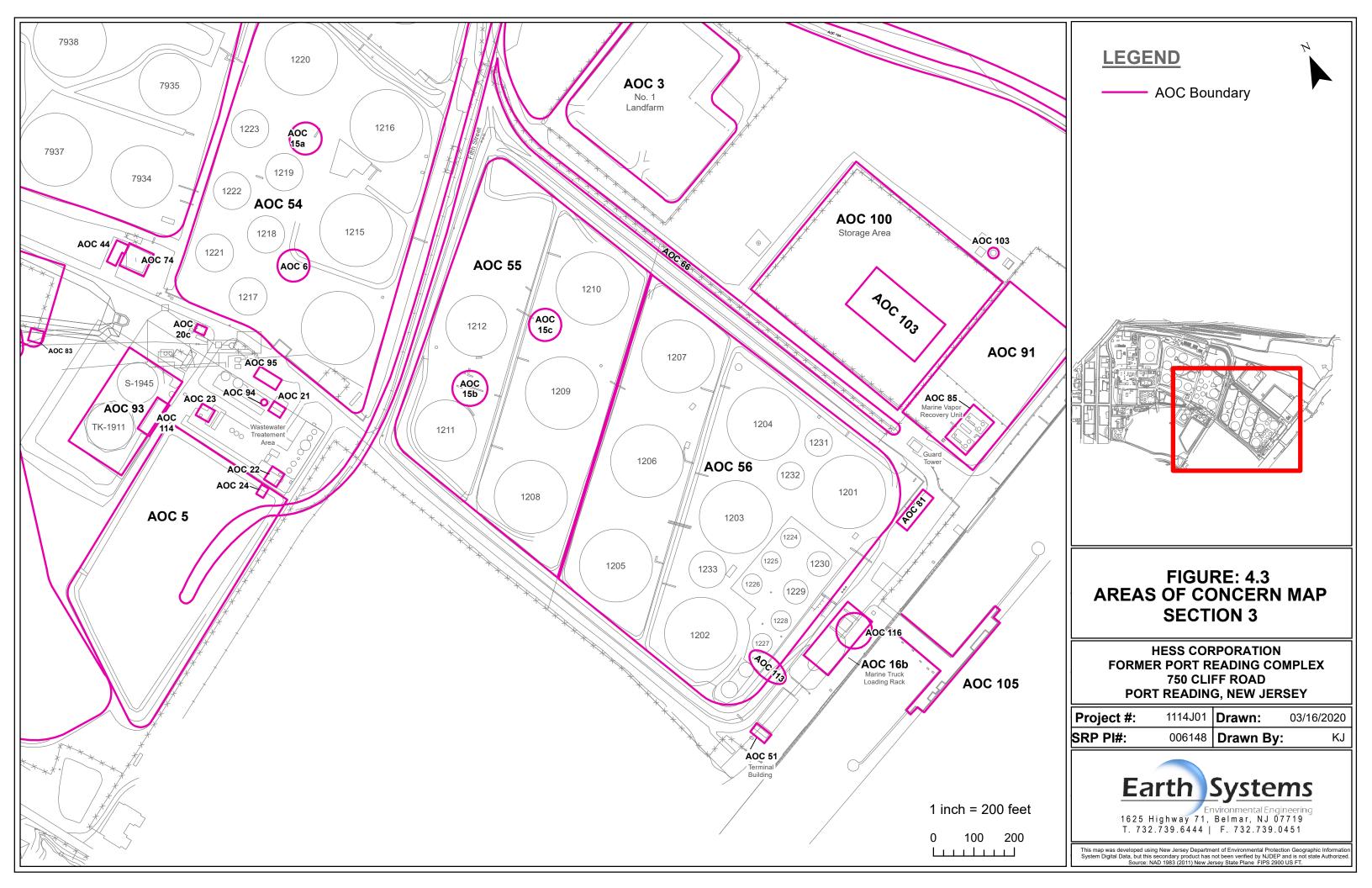


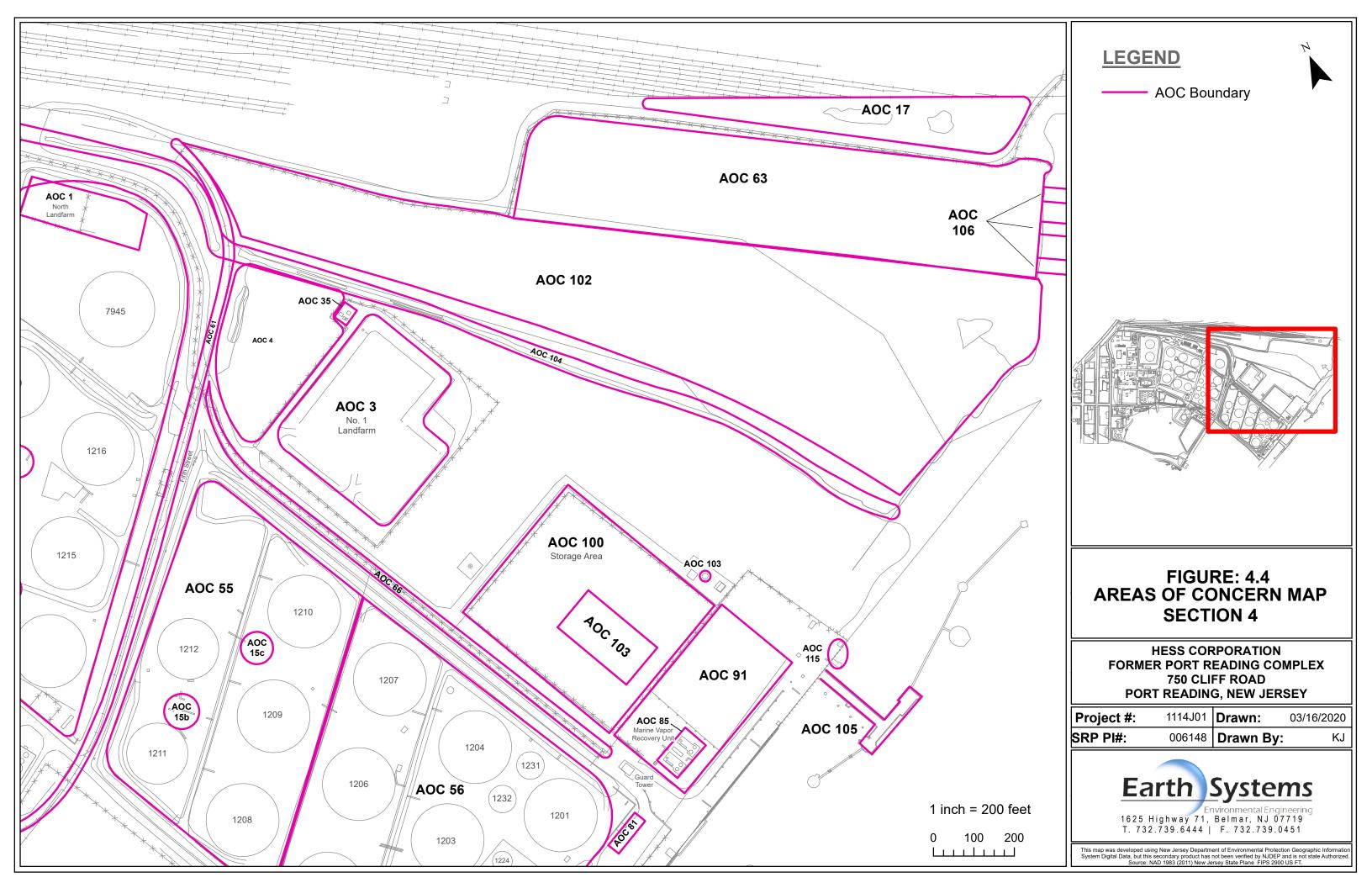














ATTACHMENT 1 CASE INVENTORY DOCUMENT

Hess Corporation - Former Port Reading
Case Name: Complex (HC-PR) IMPORTANT: 1) Do not delete or copy and paste across multiple columns because it can disrupt hidden equations. PI #: 006148 2) If pasting from a Word document, use the Paste option: Match Destination Formatting

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Case Invento	ry Document Version 1.4 02/23/17	I	T				T		ı	ı	1	ı	1					Tw	1
AOC ID	AOC Type	AOC Description	Confirmed Contamination	AOC Status	Status Date	Incident #	DEP AOC Number	Contaminated Media	Contaminants of Concern	Additional Contaminants of Concern	Additional Contaminants of Concern	Applicable Remediation Standard	Exposure Route	Additional Exposure Route	RA Type	Additional RA Type	Additional RA Type	Was an Order of Magnitude Evaluation Conducted?	Activity
AOC 1	Discharge and disposal area - Landfarm	North Landfarm - Land Treatment System: RCRA Interim Status Hazardous Waste Land Treatment/Disposal Unit	Yes	RAW	9/28/2016			Mixed Media	VO + BN	Metals		Remediation Standards	Ground Water						Several soil investigations were conducted between 1980 and 2009 at the NLF as part of previously approved closure activities. Seven (7) permitted monitoring wells were installed. In May 2013, Hess submitted Draft Soil and Groundwater Remedial Action Permits. A Remedial Action Workplan (that presents the final closure and post-closure monitoring plan specific to the North Landfarm) was submitted in the third quarter of 2016 to the USEPA and NJDEP. A 90% Remedial Action Design was submitted in October 2019 and is pending review by the NJDEP/EPA.
AOC 2	Discharge and disposal area - Landfarm	South Landfarm - Land Treatment System: RCRA Interim Status Hazardous Waste Land Treatment/Disposal Unit	Yes	RAW	9/23/2016			Mixed Media	VO + BN	Metals		Remediation Standards	Ground Water						Groundwater analytical results from the January 24, 2007 and April 18, 2007 sampling events continue to exhibit concentrations above the GWQS. In May 2013, Hess submitted Draft Soil and Groundwater Remedial Action Permits. A Remedial Action Workplan (that presents the final closure and post-closure monitoring plan specific to the South Landfarm) was submitted in the third quarter of 2016 to the USEPA and NUDEP and comments were provided in March 2019. A Response to Comments is currently being prepared.
AOC 3	Discharge and disposal area - Landfarm	No. 1 Landfarm - Land Treatment System: RCRA Operating Permit for Hazardous Waste Land Treatment/Disposal	Yes	RAW	9/13/2016			Mixed Media	Metals			Remediation Standards	Ground Water						Groundwater analytical results indicate that metal concentrations are above the GWQS. A Remedial Action Workplan (that presents the final closure and post-closure monitoring plan specific to the No. 1 Landfarm) was submitted in the third quarter of 2016 to the USEPA and NJDEP. The 100% design for the Remedial Action Design was submitted in May 2019 and is pending formal approval.
AOC 4	Discharge and disposal area - Historic fill material area/other fill area	Dredge Spoils	No	No Sampling Trigger	10/9/2015										No Remedial Action				Soil, groundwater, and surface water investigations conducted for AOC 4 between 1987 and 2012 were inconclusive, reporting concentrations of targeted compounds, including benzene and chlorobenzene, as non-detect (ND) or below the applicable NJDEP standards. Available quarterly groundwater monitoring data pertaining to L1-2 dating from January 2005 to April 2015 reported benzene and chlorobenzene as ND or below their respective GWQS.
AOC 5	Discharge and disposal area - Sprayfield	Aeration Basins	Yes	RAW	5/15/2015			Mixed Media	Metals + EPH			Remediation Standards	Ground Water		Capping				A Remedial Action Report/Closure Report was submitted for AOC 5: Aeration Basins by EnviroTrac on May 15, 2015. The review is currently pending.
AOC 6	Storage tank and appurtenance - Unregulated underground storage tank	500-gallon UST utilized as temporary storage of water drained from the adjacent aboveground bulk petroleum storage tanks and, any potential hydrocarbons carried with the water.	Yes	RI	10/9/2015			Mixed Media	BN	VO	Metals	Remediation Standards	Ingestion/Dermal	Ground Water					A 500-gallon UST used for the temporary storage of water drained from the adjacent aboveground bulk petroleum storage tanks was previously removed. Soil and groundwater investigations indicate that concentrations of VOCs, SVOCs, and metals are present above applicable NJDEP standards. Further investigation is planned.
AOC 7	Discharge and disposal area - Area of discharge pursuant to N.J.A.C. 7:1E	Central Colonial Pipeline - release of unknown hydrocarbons	Yes	RI	10/9/2015	91-05-14-1356		Mixed Media	VO + BN	Metals	PAHs	Remediation Standards	Ground Water						Soil and groundwater investigations indicate that LNAPL is present in AOC-7 and that concentrations of VOCs, SVOCs, PAHs, and metals are present above applicable NJDEP standards. Further investigation is planned.
AOC 8	Storage and staging area - Storage pad and area	Waste Container Storage Area	Yes	RI	10/9/2015			Mixed Media	VO + BN	PCBs	Metals	Remediation Standards							Soil and groundwater investigations indicate that contaminant concentrations of VOCs, BNs, metals and PAHs are above applicable NJDEP standards. Further investigation is planned.
AOC 9	Other areas of concern - Underground piping including industrial process sewer	Alkylation Unit (Sewer Line) - The Alkylation Unit process area contains 11 catch basins connected to piping from process neutralization tanks and stormwater runoff collection points.	Yes	RI	10/9/2015	92-10-28-1052-59, 07-05-11-1330-47		Mixed Media	VO + BN	Metals		Remediation Standards	Ground Water						Soil and groundwater investigations indicate that contaminant concentrations of VOCs, BNs, and metals are above applicable NJDEP standards. Further investigation is planned.
AOC 10	Storage tank and appurtenance - Loading and unloading area	Truck Loading Rack (TLR)	Yes	RI	3/16/2017	93-4-30-1638-14, 93 10-21-1435-21, 97- 11-7-1647-16,08-08- 14-0949-36		Ground Water	VO + BN			Remediation Standards	Ground Water						The Truck Loading Rack (TLR) is used to load customer fuel trucks with gasoline, heating oil, and diesel fuel. Several historic splils have occurred at the TLR since 1993. Monitoring wells installed around the TLR have historically detected product. Historic groundwater samples have detected VOCs and BNs above the GWQS. Investigation is also being conducted to examine and inspect the product under the asphalt which migrates to the regional storm water passing through AOC 10. A Supplemental RIW is being submitted in February 2020 to complete soil and groundwater delineation.
AOC 11a	Storage tank and appurtenance - State or Federal Regulated underground storage tank	Administration Building USTs: One 550gallon UST of unknown contents; one 3,000 gallon #2 fuel oil UST; one 2,000 gallon #2 fuel oil UST; and one 5,000 gallon #6 fuel oil UST	Yes	RI	3/2/2016	90-08-29-1617		Mixed Media	VO + BN			Remediation Standards	Ground Water						In the early 1990s, four USTs were removed from the area of the current Administration Building. Previous soil and and groundwater investigations have demonstrated the existence of a chlorinated solvent plume near the Administration Building. In addition, previous vapor investigation indicate contaminant concentrations above NJDEP screening levels. Further soil and groundwater investigations are planned.
AOC 11b	Storage tank and appurtenance - State or Federal Regulated underground storage tank		Yes	NFA-A DEP Issued (Unrestricted Use)	2/7/1995	91-08-22-1911-24, 94-10-5-1620-28		Mixed Media	VO + BN	TPHC		Remediation Standards	Ingestion/Dermal	Ground Water	Excavation				Two (2) 3,000-gallon #2 fuel oil USTs were previously removed. Several soil and groundwater investigations have been conducted. Impacted soil was removed and disposed of off-site. NFA was granted by NJDEP in February 1995. No further investigation is planned.

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AOC 12	Drainage system and area - Surface water body	Smith Creek and Detention Basin	Yes	RAW	8/17/2016			Surface Water	VO+ Metals	BN		Remediation Standards	Ground Water						Surface and groundwater investigations conducted at this AOC indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned. A supplemental RIW is being submitted in February 2020 to complete delineation.
AOC 13	Storage and staging area - Surface impoundment and lagoon	Former Oil Water Lagoons - AOC-13, Former Oil Water Lagoons, is comprised of three (3) former lagoon areas: the Former Oily Water Lagoon (or Oil/Water Separator Lagoon), the Former Mini-Lagoon, and the Former Filter Backwash Lagoon.	Yes	RAW	10/9/2015			Mixed Media	VO+ Metals	EPH + BN	VO	Remediation Standards	Ground Water						Soil and groundwater investigations conducted at the Former Oil Water Lagoon Area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 14a	Storage tank and appurtenance - Above ground storage tank	1st Tankfield - This AOC is located on the west side of the property within the refinery operations section of the site and is subdivided into AOC 14A and AOC 14B. The south portion of the AOC (14B) is also a double containment area that houses 10 ASTs. AOC 14B also contains a gasoline additive truck unloading area and associated concrete pad. Current & historical storage within the AOC includes MTBE, TAME, Slurry Oil, Light Cycle Oil, Raffinate, Methanol, Process Water, Gasoline, & Sour Water.	Yes	RI	10/9/2015			Mixed Media	VO + BN	Metals		Remediation Standards	Ground Water						Soil and groundwater investigations conducted at this AOC indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 14b	Storage tank and appurtenance - Above ground storage tank	Rundown Tankfield - This AOC is located on the west side of the property within the refinery ops section of the site and is subdivided into AOC 14A and AOC 14B. The south portion of the AOC (14B) is also a double containment area that houses 10 ASTs. AOC 14B also contains a gasoline additive truck unloading area & associated concrete pad. Current and historical storage within the AOC includes MTBE, TAME, Slurry Oil, Light Cycle Oil, Raffinate, Methanol, Process Water, Gasoline, & Sour Water.	Yes	RI	10/9/2015			Mixed Media	VO + BN	Metals		Remediation Standards	Ground Water						Groundwater investigations conducted at the Rundown Tankfield Area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 15a	Storage tank and appurtenance - Unregulated underground storage tank	500-gallon #4 heating oil and 550-gallon #4 heating oil	Yes	RI	10/9/2015	89-11-15-1637		Mixed Media	TPHC	VO + BN		Remediation Standards	Ground Water		Excavation				A 500-gallon UST and 550-gallon UST were previously removed. Contaminated soils were excavated. Groundwater investigations indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 15b	Storage tank and appurtenance - State or Federal Regulated underground storage tank		l Yes	RI	10/9/2015			Ground Water	VO + BN			Remediation Standards	Ground Water		Excavation				A 1,000-gallon #6 fuel oil UST and a 550-gallon #2 fuel oil UST were previously removed. Contaminated soils were excavated. Groundwater investigations indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 15c	Storage tank and appurtenance - Unregulated underground storage tank	550-gallon #6 Fuel oil	Yes	RI	10/9/2015			Mixed Media	TPHC	BN		Remediation Standards	Ground Water		Excavation				A 550-gallon #6 fuel oil UST was previously removed. Soil and groundwater investigations indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 16a	Storage tank and appurtenance - Loading and unloading area	Railcar Loading Area	No	No Sampling Trigger	10/9/2015			Ground Water	VO			Remediation Standards	Ground Water						Groundwater investigations conducted near the Railcar Loading Area indicate that chlorinated solvents were detected above GWOS and are attributed to an off-site source. Further investigation is planned to illustrate that impacts are not from the operations performed at this AOC and are from an unknown source.
AOC 16b	Storage tank and appurtenance - Loading and unloading area	Marine Terminal Loading Rack Area	Yes	RI	10/9/2015			Mixed Media	VO + PAHs	TPHC		Remediation Standards	Ground Water						Groundwater investigations conducted near the marine terminal loading area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 17	Storage tank and appurtenance - Loading and unloading area	Coal Loading Rack	No	No Sampling Trigger	10/9/2015			None				Remediation Standards							The NJDEP requested that this AOC be investigated in a letter dated March 12, 2003. A chain of title conducted in 2011 showed that Hess Corporation had never owned or leased the parcel referenced by this AOC. This was acknowledged by the EPA in a letter dated October 16, 2014. No further investigation is planned.
AOC 18	Storage tank and appurtenance - Loading and unloading area	Dimersol Unit	Yes	RI	10/9/2015			Soil	Metals			Remediation Standards							Soil investigations conducted near the Dimersol Unit used in the production of high octane fuels indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 19	Storage tank and appurtenance - Unregulated underground storage tank	Quality Control Laboratory	Yes	RAR	7/31/2019	13-07-24-1427-02		Mixed Media	VO+ Metals			Remediation Standards	Ground Water	Ingestion/Dermal	Excavation	Capping	Institutional Control		The QC Laboratory was demolished in 2015 and included the decomissioning of 4 USTs. Soil and groundwater investigations conducted at the QC Laboratory area indicated that contaminant concentrations were above applicable NJDEP standards in the vicinity of former UST T2. The remedial investigation was complete in 2016. In November 2016, impacted soil was excavated and soil sampling and groundwater sampling confirm that the remediation was effective. Residual groundwater metal and benzene impacts are still present and a CEA is being proposed. Isolated exceedances of metals in soil, unrelated to former operation, are being addressed through the use of institutional and engineering controls.

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AOC 20	Other areas of concern - Electrical transformer and capacitor	Transformers & Rectifiers	No	PA	10/9/2015			None				Remediation Standards							A total of 77 tra the property. T labeled as non- release or a rel vicinity of the t exception of th AOC-20b, and planned at this
AOC 20a	Other areas of concern - Electrical transformer and capacitor	T-1600A & T-1600B Transformers.	Undetermined	PA/SI	10/9/2015							Remediation Standards							The two transfe contaminated. investigations is applicable N IF

			Contamination				Media	Concern	Concern	Concern	Standard		Exposure Route	RA Type	RA Type	Evaluation Conducted?	,
AOC 20	Other areas of concern - Electrical transformer and capacitor	Transformers & Rectifiers	No	PA	10/9/2015		None				Remediation Standards						A total of 77 transformers and rectifiers are present on the property. The transformers and rectifiers were labeled as non-PCB and no evidence of leaks or a release or a release of cooling fluid was observed in the vicinity of the transformers and rectifiers, with the exception of the transformers described as AOC-20a, AOC-20b, and AOC-20c. No further investigation is planned at this time.
AOC 20a	Other areas of concern - Electrical transformer and capacitor	T-1600A & T-1600B Transformers.	Undetermined	PA/SI	10/9/2015						Remediation Standards						The two transformers were labeled as "PCB- contaminated. Staining was observed. However, soil investigations indicate that concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 20b	Other areas of concern - Electrical transformer and capacitor	T510A & T510B Transformers.	Undetermined	PA/SI	10/9/2015						Remediation Standards						The two transformers were labeled as non-PCB contaminated. Soil investigations indicate that concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 20c	Other areas of concern - Electrical transformer and capacitor	T2606A & T2606B Transformers.	Undetermined	PA/SI	10/9/2015		Soil	PCBs			Remediation Standards						The two transformers were not labeled with PCB conten labels. Staining was observed. Soil investigations indicate that concentrations are below applicable NJDEr standards. No further investigation is planned at this time.
AOC 21	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	X-1933- Adsorber Feed Sump.	Undetermined	PA/SI	10/9/2015		Mixed Media	BN			Remediation Standards						The concrete pit is heavily stained around the sides. A steel pipe was discharging water to the pit. A 275-gallot tote containing hydrogen peroxide was stored on the concrete platform. Soil investigations indicate that concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 22	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	X-1908- Clarifier Lift Sump.	Undetermined	PA/SI	10/9/2015		Soil	BN + Metals			Remediation Standards						Soil investigations conducted at the concrete lined clarifier lift sump indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 23	Drainage system and area - Storm sewer collection system	X-1904 Stormwater Transfer Pump S-1922 API Stormwater Separator X-1903 Stormwater Diversion Manhole	Undetermined	PA/SI	10/9/2015		Soil	VO + BN	Metals		Remediation Standards	Ingestion/Dermal					Soil investigations at this AOC indicate that contaminan concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 24	Drainage system and area - Storm sewer collection system	Sluice Pit	Undetermined	PA/SI	10/9/2015		Soil	BN + Metals			Remediation Standards	Ingestion/Dermal					Soil investigations at the concrete lined sluice pit indicat that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 25	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	X-1950 and X-1950B- Alkylation Neutralization Basin	Undetermined	PA/SI	10/9/2015		Soil	Other	VO		Remediation Standards	Ingestion/Dermal					Soil investigations around the Alkylation Neutralization Basin indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 26	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	D-1104 MEA Sump	Undetermined	PA/SI	10/9/2015		Soil	Metals			Remediation Standards	Ingestion/Dermal					Soil investigations conducted at the Monoethanolamine (MEA) Sump area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 27	Discharge and disposal area - Waste water treatment systems/septic/seepage pit/dry well	EADC Disposal Pit	Undetermined	PA/SI	10/9/2015		Soil	Metals			Remediation Standards	Ingestion/Dermal					Soil investigations conducted at the Ethylaluminum Dichloride (EADC) Disposal Pit indicate that contaminar concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 28	Storage tank and appurtenance - Above ground storage tank	Cooling Water Tower	Undetermined	PA/SI	10/9/2015		Soil	Metals			Remediation Standards	Ingestion/Dermal					Soil investigations conducted near the concrete beneatl and around the cooling water tower indicate that contaminant concentrations are above applicable NJDE standards. Further investigation is planned.
AOC 29	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	Mixing Basin	Undetermined	PA/SI	10/9/2015		Mixed Media	Metals			Remediation Standards						Based on the types of processes conducted in the mixin basin, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 30	Discharge and disposal area - Waste water treatment systems/septic/seepage pit/dry well	Sulfur Pit	Undetermined	PA/SI	10/9/2015		Mixed Media	Metals			Remediation Standards						Based on the extensive former use of the Sulfur Pit, a potential exists for a release of hazardous substances. No further investigation is planned.
AOC 31	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	Brine Pit	Undetermined	PA/SI	10/9/2015		Mixed Media	Other			Remediation Standards						The concrete pit had a metal lid and the interior was not open for observations. The concrete pit was later identified as the Brine Pit and is utilized to add salt to th cooling water. Based on this information, the potential exists for a release of hazardous substances to the soil and groundwater. Further investigation is planned.
AOC 32	Discharge and disposal area - Waste water treatment systems/septic/seepage pit/dry well	X- 1951- SRU Neutralization Basin	Undetermined	PA	10/9/2015		Mixed Media	Other			Remediation Standards						Soil investigations conducted at the concrete-lined SRU Neutralization Basin indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 33	Drainage system and area - Storm sewer collection system	X-1936 Truck Rack Sump 2	Undetermined	PA/SI	10/9/2015		Mixed Media	VO + PAHs			Remediation Standards	Ground Water					Soil and groundwater investigations conducted at the concrete-lined pit identified as the Truck Rack Sump Not 2 indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 34	Drainage system and area - Storm sewer collection system	Several pieces of equipment associated with the API Separator including the following: S-1921A – Process Water Corrugated Plate Separator, S-1921B – Process Water Corrugated Plate Separator, X-1922A – API Separator, X-1922B – API Separator, X-1922B – API Separator Oil Sump, X-1925 – API Separator Sump, X-1926 – Storm Water Lagoon Sump, X-1930 – Surge Pumping Station, and X-1932 – API Splitter Box.	Undetermined	PA	10/9/2015		Soil	vo			Remediation Standards	Ingestion/Dermal					Based on site observations at the API Truck Loading Area, a poential exists for a release of hazardous substances. Further investigation is planned.
AOC 35	Drainage system and area - Building sump and pit	No.1 Landfarm Discharge Sumps	Undetermined	PA	10/9/2015		Soil	VO + BN	Metals		Remediation Standards	Ingestion/Dermal					Soil investigations conducted at the three concrete pads identified as sumps S-1941, S-1942 and an oil/water separator indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is clapaced.

Case Inventory Document Version 1.2

Activity

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AOC 36	Other areas of concern - Any area suspected of containing contaminants	Flare Tower	Undetermined	PA	10/9/2015			Mixed Media	VO			Remediation Standards					The flare tower was active and connected to the Flare Knock Out Drum (AOC-87). Although it was not directly observed, a sump was identified beneath the flare tower. No staining or evidence of a release of hazardous substances was observed in the vicinity of the flare tower, however, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 37	Storage tank and appurtenance - Loading and unloading area	No. 2 Oil Detergent and Additive Truck Unloading Area	Undetermined	PA	10/9/2015			Mixed Media	VO + BN			Remediation Standards					Several pumps, piping, empty concrete slabs, and one approximately 345-gallon unlabeled steel tote were observed. The equipment was identified as part of the No. 2 Oil Detergent and Additive Truck Unloading Area. Ponded water with a red color was observed within a concrete secondary containment area. Several areas of stained concrete and gravel were observed in the vicinity. Based on site observations, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 38	Storage and staging area - Storage pad and area	NH3 Truck Loading Rack/Ammonia Area	Undetermined	PA/SI	10/9/2015			Soil	Metals			Remediation Standards	Ingestion/Dermal				Soil investigations at the Ammonia Truck Loading Rack indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.
AOC 39	Storage tank and appurtenance - Loading and unloading area	EADC Truck Unloading Area	Undetermined	PA	10/9/2015			Mixed Media	VO + BN			Remediation Standards					One metal-siding building was observed in the east portion of the Dimersol Unit. The interior of the building consisted of several "storage drums," which were large ASTs mounted on concrete supports. Several piping runs and three pumps were observed within the building as well. The concrete supports in which the pumps were mounted were heavily stained. The building was identified as the EADC Truck Unloading Area. Based on observations made during the site visit, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 40	Storage tank and appurtenance - Loading and unloading area	Fresh Acid Unloading Area	Undetermined	PA	10/9/2015			Mixed Media	Other			Remediation Standards					No further investigation of the Fresh Acid Unloading Area is warranted at this time as it is located in the vicinity of the Alkylation Neutralization Basin (AOC-25), in which further investigation is planned.
AOC 41	Storage tank and appurtenance - Loading and unloading area	Gasoline Additive Truck Unloading Rack	Undetermined		10/9/2015			Mixed Media	VO			Remediation Standards					No staining or evidence of a release of hazardous substances was observed on the concrete slab or in the vicinity. Based on the observations made during the site yisit, no further investigation is planned.
AOC 42	Storage tank and appurtenance - Loading and unloading area	Methanol Truck Unloading Area, Decontamination Area	Yes	PA/SI	10/9/2015			Ground Water	VO			Remediation Standards	Ground Water				Groundwater samples collected to investigate the South Landfarm (AOC-2) identified contamination in the vicinity of this AOC. No further investigation is planned at this time as there is ongoing groundwater sampling conducted in the vicinity.
AOC 43	Storage tank and appurtenance - Loading and unloading area	Truck Unloading (Prover Truck) Area 1	Undetermined	PA	10/9/2015			Soil	VO + BN	Metals		Remediation Standards	Ingestion/Dermal				Soil investigations conducted at the Truck Loading Rack indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 44	Storage tank and appurtenance - Loading and unloading area	Truck Unloading (Prover Truck) Area 2	Undetermined	PA	10/9/2015			Mixed Media	VO + BN	PAHs	Metals	Remediation Standards	Ground Water				Soil and groundwater investigations conducted in the vicinity of the pumps and piping at this AOC indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 45	Storage tank and appurtenance - Loading and unloading area	SRU Truck Unloading Area	Undetermined	PA	10/9/2015			Soil	BN			Remediation Standards	Ingestion/Dermal				Soil investigations conducted at the SRU Truck Unloading Area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 46	Storage tank and appurtenance - Loading and unloading area	Slop Gasoline Unloading Area	Undetermined	PA	10/9/2015			Mixed Media	VO + BN	Metals		Remediation Standards	Ground Water				Soil and groundwater investigations conducted at the Slop Gasoline Unloading Area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 47	Storage tank and appurtenance - Loading and unloading area	Bleach Truck Unloading Area	Undetermined	PA	10/9/2015			Soil	Metals			Remediation Standards	Ingestion/Dermal				Soil investigations conducted near the two small ASTs at the Bleach Truck Unloading Area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 48	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	Gasoline Dispenser and AST	Undetermined	PA	10/9/2015			Mixed Media	VO			Remediation Standards					Soil investigations at the gasoline AST and dispenser area indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 49	Storage tank and appurtenance - Above ground storage tank	Electrician Shop Diesel/No. 2 Fuel Oil ASTs	Undetermined	PA	10/9/2015			Soil	Metals			Remediation Standards	Ingestion/Dermal				Soil investigations conducted near the four, 275-gallon fuel oil ASTs indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 50	Storage tank and appurtenance - Above ground storage tank	Refinery Warehouse Diesel/No. 2 Fuel Oil ASTs	Undetermined	PA	10/9/2015			Mixed Media	BN			Remediation Standards					Soil investigations near the 1,000-gallon fuel oil and 275- gallon fuel oil ASTs indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 51	Storage tank and appurtenance - Above ground storage tank	2nd Reserve Boiler AST	Undetermined	PA	10/9/2015			Mixed Media	BN			Remediation Standards					The two ASTs were located within a concrete block secondary containment with a gravel bottom. Additionally, the two ASTs were connected to two inactive boilers within the Second Reserve Terminal Building. No staining or evidence of a release was observed during the site visit. No further investigation is planned at this time.
AOC 52	Storage tank and appurtenance - Above ground storage tank	TK-7925 AST	Undetermined		10/9/2015							Remediation Standards					Soil investigations conducted near the large AST located northwest of the Terminal Building indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.

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AOC ID	AOC Type	AOC Description	Confirmed Contamination	AOC Status	Status Date	Incident #	DEP AOC Number Contam		of Additional Contaminants of Concern	Additional Contaminants of Concern	Applicable Remediation Standard	Exposure Route	Additional Exposure Route	RA Type	Additional RA Type	Additional RA Type	Magnitude Evaluation Conducted?	Activity
AOC 53	Storage tank and appurtenance - Above ground storage tank	The Second Tankfield consisted of several large ASTs: TK-7934 (6,345,000g Unleaded Gasoline), TK-7935 (6,345,000g Gasoline), TK-7936 (9,137,000g Unleaded Gasoline), TK-7936 (9,137,000g Unleaded Gasoline), TK-7938 (9,137,000g Crude Oill/No. 2 Fuel Oil/Gasoline/Distillate), TK-7939 (9,137,000g Russian Gas Oil), TK-7940 (9,137,000g Light Cycle Oil/Distillate), TK-7941 (6,345,000g Light Cycle Oil/Distillate), TK-7941 (6,345,000g Light Cycle Oil/Oistillate), TR-7941 (6,345,000g Fuel/Distillate/Diesel)		PA	10/9/2015		Mixed N	edia BN + Metals			Remediation Standards	Ground Water						Soil and groundwater investigations conducted near the ASTs at the Second Tankfield area indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.
AOC 54	Storage tank and appurtenance - Above ground storage tank	3rd Tankfield - TK-1215 (9,137,000g. – Catfeed), TK-1216 (9,137,000g. – Catfeed), TK- 1217 (2,265,018g Wastewater/Gasoline), TK- 1218 (2,265,018g. – Wastewater/Gasoline), TK- 1218 (2,265,018g. – Gasoline), TK-1219 (2,265,018g. – Wastewater/Gasoline), TK-1220 (9,137,000g. – Catfeed), TK-1221 (2,265,018g. – Unleaded Gasoline), TK-1223 (2,484,100g. – MTBE//Gasoline), TK-1236 (17,600g. – Condensate Water), and TK-7945 (9,137,000g. – Unleaded Gasoline)/Catfeed/Benzene/No. 2 Fuel Oil/Kerosene/Jet Fuel).	Undetermined	PA	10/9/2015		Mixed №	edia VO			Remediation Standards							Based on site observations at the Third Tankfield area, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 55	Storage tank and appurtenance - Above ground storage tank	4th Tankfield - The ID, approximate volume, and contents of the tanks are: TK-1208 (9,137,000gallons - Catfeed), TK-1209 (9,137,000 gallons - Catfeed), TK-1210 (9,137,000 gallons - Catfeed), TK-1211 (6,305,500 gallons - Unleaded Gasoline), TK-1212 (6,305,500 gallons - Slurry/Gasoline).	Undetermined	PA	10/9/2015		So	VO + BN	Metals		Remediation Standards	Ingestion/Dermal						Soil investigations conducted at the Fourth Tankfield Area indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.
AOC 56	Storage tank and appurtenance - Above ground storage tank	2nd ResT1201(9.1M g- caustic/Gas),T1203(6.3M g-Gas),T1203(9.1M g- Gas),T1204(9M g-No2 Oil),T1205(9.1M g- Gas),T1204(9M g-No2 Oil),T1225(9.1M g- Gas),T1204(433K g-No2 Oil),T1225(433K g- Diesel/No2 Oil),T1226(433K g-Diesel/No2 Oil),T1227(433K g- JetFuel/Kerosene/Distliate),T1228(433K g- JetFuel/Kerosene/Distliate),T1228(433K g- Methanol/Ethanol),T1230(846K g- Methanol/Ethanol),T1230(846K g- Gas),T1233(Unknown-Gas),T1234(1.7M g- Gas),JetFuel/No2 Oil/Kerosene/Benzene), T1234(1.5M g-Ethanol),T1234(1.7M g- Gas),JetFuel/No2 Oil/Kerosene/Benzene), T1234(1.5M g-Ethanol),T1234(1.7M g- Gas),JetFuel/No2 Oil/Kerosene/Benzene), T124(1.5M g-Ethanol),T1234(1.7M g- Gas),JetFuel/No2 Oil/Kerosene/Benzene), T124(1.5M g-Ethanol),T1234(1.7M g- Gas),JetFuel/No2 Oil/Kerosene/Benzene),	Undetermined	PA	10/9/2015		Mixed N	edia VO + BN	Metals	ЕРН	Remediation Standards	Ground Water						Soil and groundwater investigations conducted near the ASTs located at the Second Reserve Tankfield Area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 57	Storage tank and appurtenance - Above ground storage tank	Day Tankfield - TK-1101 (Unknown - Petroleum Additive), TK-1102 (Unknown-Xylene, Ethylbenzene, Petroleum Additive), TK-1102 (Unknown-Xylene, Ethylbenzene, Petroleum Additive), TK-1175 (Unknown-No. 2 Oil, Distillate), TK-1176 (424,500g Ethanol 200 Proof, Gasoline, Benzene), TK-1178 (Unknown-No. 2 Oil, Gasoline), TK-1178 (211,500g No. 2 Oil, Gasoline), TK-1179 (Unknown-Unleaded Gasoline, Gasoline, Benzene), TK-1180 (Unknown-Gasoline), TK-1181 (649,700g Gasoline), and TK-1182 (Unknown-Diesel, Distillate)	Undetermined	PA	10/9/2015		Mixed N	edia VO + BN			Remediation Standards	Ground Water						Soil and groundwater investigations conducted near the ASTs at the Day Tankfield Area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 58	Storage tank and appurtenance - Above ground storage tank	Chemical Storage - TK-2601A (30,000 gallons - 50 BeCaustic), TK-2601B (30,000 gallons - Spent Acid, 50 BeCaustic), TK-2602 (12,600 gallons - Caustics), TK-2606 (14,800 gallons - Caustics), TK-2606 (14,800 gallons - Spent Acid), TK-2617 (114,300 gallons - Spent Acid), TK-2618 (14,700 gallons - Spent Caustics), and TK-2613 (Unknown - Dimersol Spent Caustics).	Undetermined	PA	10/9/2015		Mixed N	edia Other			Remediation Standards							Soil investigations condcuted near the Chemical Storage Area indicate that contaminant concentrations are below applicable NJDEP standards. Further investigation is planned at this time.
AOC 59	Storage tank and appurtenance - Above ground storage tank	API Storage	Undetermined	PA	10/9/2015		Mixed M	edia BN			Remediation Standards							Soil investigations conducted near the API Storage Area indicate that contaminant concentrations are below applicable NJDEP standards. Further investigation is planned at this time.
AOC 60	Storage tank and appurtenance - Above ground storage tank	Avenue B Tankfield	Undetermined	PA	10/9/2015		Mixed M	edia VO			Remediation Standards							Soil investigations conducted near the ASTs located at the Avenue B Tankfield Area indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 61	Other areas of concern - Other discharge area	Inactive RR Spur	Undetermined	PA	10/9/2015		Mixed N	edia VO + BN			Remediation Standards							Portions of the inactive rail spur were observed extending to the southwest between the Third and Fourth Tankfields. No staining, stressed vegetation, or evidence of a release of hazardous substances was observed during the site visit; however, based on the historic presence of the rail lines and the unknown products transported, a potential exists for the release of hazardous substances. Further investigation is planned.
AOC 62	Other areas of concern - Other discharge area	Inactive RR Spur- Between Canning Plant and QC Lab	Undetermined	PA	10/9/2015		So	Metals + PAI	s		Remediation Standards	Ingestion/Dermal						Soil investigations conducted near the Inactive Railroad Spur indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.
AOC 63	Other areas of concern - Other discharge area	Former Rail Lines (Vacant Land North)	Undetermined	PA	10/9/2015		So	Metals + PAI	s PCBs		Remediation Standards	Ingestion/Dermal						Soil investigations conducted near the Former Rail Lines along the northern portion of the property indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.

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AOC 64	Other areas of concern - Other discharge area	Inactive RR Spur- Administration Building	Undetermined	PA	10/9/2015			Soil	VO+ Metals			Remediation Standards	Ingestion/Dermal					Soil investigations conducted near the Inactive Railroad Spur indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 65	Other areas of concern - Other discharge area	Active RR Spur Between 1st & 2nd Tankfields	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO + BN			Remediation Standards						The active rail spur was observed extending to the southwest between the First and Second Tankfields. No staining, stressed vegetation, or evidence of a release of hazardous substances was observed. Due to the active status of the rail spur, no further investigation is planned at this time.
AOC 66	Other areas of concern - Other discharge area	RR Spur Between Along 4th & 2nd Reserve Tankfields	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO+ Metals			Remediation Standards						The active rail spur was observed between the current Fourth Tankfield and No. 1 Landfarm and between the Second Reserve Tankfield and Laydown Yard. No staining, stressed vegetation, or evidence of a release of hazardous substances was observed during the site visit. Due to the active status of the rail spur, no further investigation is planned at this time.
AOC 67	Other areas of concern - Underground piping including industrial process sewer	Colonial Pipline	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO+ Metals			Remediation Standards						The area in the vicinity of the pipeline was vegetated with grasses and was marked with numerous signs that indicated the presence of the pipeline. Various wood boards and dead vegetation debris were observed along the outer edges of the pipeline. No staining, stressed vegetation, or evidence of a release of hazardous substances was observed. No further investigation is planned at this time.
AOC 68	Other areas of concern - Underground piping including industrial process sewer	Buckeye Pipline	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO + BN			Remediation Standards						Portions of an above ground and underground pipeline were observed extending from the vicinity of the intersection of Avenue B and Second Street southwest, then west, then north through the property. The pipeline is owned by Buckeye Partners, L.P. and is used to transport petroleum and refined products. The pipeline leads to an area just east of the QC Laboratory (AOC-19). No staining, stressed vegetation, or evidence of a release of hazardous substances was observed during the site visits. No further investigation is planned at this time
AOC 69	Other areas of concern - Underground piping including industrial process sewer	Williams Pipline	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO + BN			Remediation Standards						Portions of a pipeline were observed extending along the southeast side of the Aeration Basin (AOC-5) and along the southwest side of the Retention Pond (AOC-12). The pipeline markers indicated that the pipeline was owned and operated by Transcontinental Gas Pipe Line Corporation; however, the pipeline was later identified as the Williams Pipeline. No staining, stressed vegetation, or evidence of a release of hazardous substances was observed during the site visits. No further investigation is planned at this time.
AOC 70	Other areas of concern - Underground piping including industrial process sewer	Spectra (Former Texas Eastern) Pipline 10' abandoned line	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO + BN			Remediation Standards						Portions of a pipeline were observed extending from the Arthur Kill to the northwest through the property. The pipeline was identified as an abandoned pipeline owned by Spectra Energy. The pipeline leads to a portion of the property that is fenced and locked located west of the MTBE Unit. The fenced area was labeled as the Spectra Energy Hess Plant Valve Site. No staining, stressed vegetation, or evidence of a release of hazardous substances was observed during the site visits. No further investigation is planned at this time.
AOC 71	Other areas of concern - Underground piping including industrial process sewer	Spectra (Former Texas Eastern) Pipline 12' line	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO + BN			Remediation Standards						Portions of a pipeline were observed extending from the Arthur Kill to the northwest through the property. The pipeline is owned by Spectra Energy and is used to transport petroleum and refined products via an underground pipeline from the docks along the Arthur Kill. The pipeline leads to a portion of the property that is fenced and locked located west of the MTBE Unit. The fenced area was labeled as the Spectra Energy Hess Plant Valve Site. No staining, stressed vegetation, or evidence of a release of hazardous substances was observed during the site visits. No further investigation is planned at this time.
AOC 72	Other areas of concern - Underground piping including industrial process sewer	Colonial Pipline (abandoned)	Undetermined	No Sampling Trigger	10/9/2015			Soil	VO + BN			Remediation Standards						A portion of a large pipeline was observed extending from the south dock on the Arthur Kill through the property. The pipeline is an abandoned Colonial Pipeline. No staining or evidence of a release of hazardous substances was observed during the site visit. No further investigation is planned at this time.
AOC 73	Other areas of concern - Other discharge area	TEL Building (North)	Undetermined	PA	10/9/2015			Soil	VO+ Metals			Remediation Standards						Soil investigations conducted near the Tetraethyl Lead (TEL) Building (North) indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 74	Other areas of concern - Other discharge area	TEL Building (South)	Undetermined	PA	10/9/2015			Soil	VO+ Metals			Remediation Standards						Soil investigations conducted near the Tetraethyl Lead (TEL) Building (South) indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 75	Other areas of concern - Other discharge area	Former Canning Plant AST	Undetermined	PA	10/9/2015			Mixed Media	VO + BN			Remediation Standards						Soil investigations conducted near the three large ASTs and four smaller ASTs located near the Former Canning Plant indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.
AOC 76	Storage tank and appurtenance - Above ground storage tank	Former Canning Plant Loading Area	Undetermined	PA	10/9/2015			Mixed Media	VO + BN			Remediation Standards						Based on the historic use of the former tankfield, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 77	Storage tank and appurtenance - Above ground storage tank	Former Petroleum Solvents AST	Undetermined	PA	10/9/2015			Mixed Media	VO			Remediation Standards						Soil investigations conducted near the tankfield consisting of six ASTs and a raised berm indicate that concentrations are above applicable NJDEP standards. Further investigation is planned.

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AOC 78	Drainage system and area - Surface water body	Administration Building Drainage Channel	Undetermined	PA	10/9/2015			Mixed Media	VO			Remediation Standards							Based on the historic use of the former drainage ditch by a potential chemical manufacturer, a potential exists for a release of hazardous substances. Further investigation its planned.
AOC 79	Drainage system and area - Drainage swale and culvert	Former Drainage Swale/ Ponding	Undetermined	PA	10/9/2015			Mixed Media	BN			Remediation Standards							Based on the historic use of the former drainage ditch by a potential chemical manufacturer, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 80	Other areas of concern - Other discharge area	Former Crude Topping Unit	Undetermined	PA	10/9/2015			Mixed Media	VO + BN	Metals		Remediation Standards	Ground Water						Soil and groundwater investigations conducted at the Crude Topping Unit indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 81	Other areas of concern - Other discharge area	Former Marine Terminal Building	Undetermined	No Sampling Trigger	10/9/2015			Soil	vo			Remediation Standards							Based on the review of the historic aerials, one rectangular-shaped building existed on the property south of Tk-1201 from between 1957 and 1963 until some time between 1972 and 1979. The rectangular-shaped building was identified as the former Marine Terminal building. No evidence of the former building was observed during the PA site visit on January 13, 2014. No further investigation is planned at this time.
AOC 82	Discharge and disposal area - Incinerator	Former Incinerator Building	Undetermined	PA	10/9/2015			Soil	VO+ Metals			Remediation Standards	Ingestion/Dermal						Soil investigations at the Former Incinerator Building indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is blanned.
AOC 83	Other areas of concern - Other discharge area	Historic Flare Towers	Undetermined	No Sampling Trigger	10/9/2015			Soil	BN + Metals			Remediation Standards							Based on the review of the historic aerials, two flare towers were observed on the 1963 through 1980 aerial photographs, one east and one west of the Detention Basin. No evidence of the former flare towers was observed during the site visit conducted on January 20, 2014. No further investigation is planned at this time.
AOC 84	Storage tank and appurtenance - Above ground storage tank	Former Tank N. of Admin Building	Undetermined	PA	10/9/2015			Soil	Metals			Remediation Standards	Ingestion/Dermal						Soil investigations at a former tank location north of the Administration Building indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.
AOC 85	Storage tank and appurtenance - Above ground storage tank	Marine VRU/TK 4701 & TK 4801	Undetermined	PA	10/9/2015			Soil	BN			Remediation Standards	Ingestion/Dermal						Soil investigations conducted at the Marine Vapor Recovery Unit indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 86	Storage and staging area - Storage pad and area	Truck Rack VRU	Undetermined	PA	10/9/2015			Mixed Media	VO + BN			Remediation Standards							Several pieces of equipment and plastic drums were observed on the northeast exterior of the Day Tankfield (AOC-57). The equipment and chemicals stored were part of the Truck Rack Vapor Recovery Unit (VRU), which is used for the recovery and separation of olefins. Based on the types of chemicals used, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 87	Other areas of concern - Other discharge area	Flare Knock Out Drum	Undetermined	PA	10/9/2015			Soil	Metals			Remediation Standards	Ingestion/Dermal						Soil investigations condcuted at the Flare Knock Out Drum area indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.
AOC 88	Other areas of concern - Discolored area or spill area	Compressor Building	Undetermined	PA	10/9/2015			Soil	VO + BN	Metals	EPH	Remediation Standards	Ingestion/Dermal						Soil investigations conducted at the Air Compressor Building area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 89	Other areas of concern - Discolored area or spill area	Cracking Tower	Undetermined	PA	10/9/2015			Soil	VO + BN	Metals		Remediation Standards	Ingestion/Dermal						Soil investigations conducted at the Cracking Tower area indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 90	Storage and staging area - Storage pad and area	Drum Compound (QC Lot)	No	RAR	1/22/2018			None				Remediation Standards							The drum storage compound is located on the QC lab property and is being addressed in conjunction with AOC 19. Soil investigations conducted at the drum storage compound indicate that beryllium was detected above IGW. However, concentrations are consistent across the entire QC lab property. Compliance averaging is being used to address the IGW pathway for beryllium and no further investigation is required.
AOC 91	Storage and staging area - Storage pad and area	North Dock Yard	Undetermined	No Sampling Trigger	10/9/2015			Soil	BN + Metals			Remediation Standards							Based on the review of the historical aerials, the North Dock Yard was covered with gravel between 1986 and 1995 and has been used for equipment storage since 1979. Based on the observations made during the site visit, no further investigation is planned.
AOC 92	Storage tank and appurtenance - Above ground storage tank	TK- 701A and TK-701B	Undetermined	No Sampling Trigger	10/9/2015			Soil	Other			Remediation Standards							No staining or evidence of a release was observed in the vicinity of the ASTs; however, the area in the vicinity of the ASTs was snow covered. No further investigation of the Fresh Acid Unloading Area is warranted at this time as it is located in the vicinity of the Alkylation Neutralization Basin (AOC-25), in which further investigation is planned.
AOC 93	Storage tank and appurtenance - Above ground storage tank	Waste Water Treatment - Tankfield	Yes	PA	10/9/2015			Soil	VO + BN			Remediation Standards							The Waste Water Treatment Tankfield is located within an area in which previously conducted groundwater sampling has revealed LNAPL contamination. Further investigation is planned.
AOC 94	Storage tank and appurtenance - Above ground storage tank	Waste Water Treatment- TK 1810	Yes	PA	10/9/2015			Soil	BN			Remediation Standards							The Oxidation Tower is located within an area in which previously conducted groundwater sampling has revealed LNAPL contamination. Further investigation is planned.
AOC 95	Storage and staging area - Storage pad and area	Waste Water Treatment- Storage Area	Yes	PA	10/9/2015			Ground Water	VO			Remediation Standards							The concrete storage area is located within an area in which previously conducted groundwater sampling has revealed LNAPL contamination. Further investigation is planned.
AOC 96	Other areas of concern - Other discharge area	Boiler Area	Undetermined	PA	10/9/2015			Soil	Metals			Remediation Standards	Ingestion/Dermal						Soil investigations conducted near the Boiler Area indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.

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AOC 97	Storage tank and appurtenance - Piping, above/below ground pump station, sump/pit	Above Ground Piping Runs			10/9/2015			Soil	VO + BN			Remediation Standards							Aboveground piping is located through the facility and is addressed in the area where the piping is found.
AOC 98	Drainage system and area - Storm water detention pond and fire pond	Storm & Process Sewers -	Undetermined	RI	10/9/2015			Soil	VO + BN			Remediation Standards							Storm and process sewers are located throughout the facility and are addressed in the areas where the sewers are found.
AOC 99	Other areas of concern - Hazardous substance storage or handling area	Chemical Storage Adjacent to Cooling Water Tower	Undetermined	RI	10/9/2015			Mixed Media	VO+ Metals			Remediation Standards	Ground Water						Soil and groundwater investigations conducted near the Chemical Storage Area for the Cooling Water Tower indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 100	Storage and staging area - Storage pad and area	Laydown Yard	Yes	RI	10/9/2015			Soil	BN + Metals	PCBs		Remediation Standards	Ingestion/Dermal						Soil investigations conducted near the fenced storage area known as the Laydown Yard indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 101	Other areas of concern - Other discharge area	Canning Plant	Undetermined	RI	10/9/2015			Mixed Media	VO + BN			Remediation Standards							Based on the historical activities conducted at the Former Canning Plant (currently used for storage), a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 102	Other areas of concern - Open area away from production operations	Vacant Land (South)	Undetermined	RI	10/9/2015		1	Mixed Media	VO + BN			Remediation Standards							Based on the historic excavation and/or filling events and the numerous pieces of equipment, vehicles, and storage containers stored on the property, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 103	Other areas of concern - Other discharge area	Fire Pits/Fire Areas	Yes	RI	10/9/2015			Soil	BN + Metals			Remediation Standards	Ingestion/Dermal						Soil investigations conducted near four depressed areas used as Fire Pits for training purposes indicate that contaminant concentrations are above applicable NJDEP standards. Further investigation is planned.
AOC 104	Drainage system and area - Surface water body	North Drainage Ditch	Undetermined	RI	10/9/2015		-1	Mixed Media	VO + BN			Remediation Standards							Based upon the observations made during the site visit, the historical aerials, and the discharges received by the North Drainage Ditch, further investigation is planned.
AOC 105	Other areas of concern - Other discharge area	North/South Docks	Undetermined	No Sampling Trigger	10/9/2015			None	Not Applicable			Remediation Standards							No evidence of a release of hazardous substances was observed in the vicinity of the docks. No further investigation is planned at this time.
AOC 106	Other areas of concern - Other discharge area	Abandoned Pilings	Undetermined	No Sampling Trigger	10/9/2015							Remediation Standards							No evidence of a release of hazardous substances was observed during the site visit in the vicinity of the wood pilings. No further investigation is planned at this time.
AOC 107	Storage and staging area - Storage pad and area	Drum Storage Compound	Undetermined	RI	10/9/2015			Soil	Metals			Remediation Standards	Ingestion/Dermal						Soil investigations conducted near two fenced-in Drum Storage Compound areas indicate that contaminant concentrations are above applicable NJDEP standards. No further investigation is planned.
AOC 108	Other areas of concern - Other discharge area	RR- Terminal Building	No	No Sampling Trigger	10/9/2015			None	Not Applicable			Remediation Standards							No evidence of the former buildings was observed during the PA site visit conducted on January 17, 2014. No staining or evidence of a release of hazardous substances was observed in the vicinity of the former buildings locations. No further investigation is planned at this time.
AOC 109	Drainage system and area - Dry well and sump	Truck Rack Sump	Undetermined	RI	10/9/2015			Mixed Media	VO + BN			Remediation Standards							Based on the site observations of a sump identified as the Truck Rack Sump, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 110	Other areas of concern - Other discharge area	Day Tankfield Oil/Water Separator	Undetermined	RI	10/9/2015			None	Not Applicable			Remediation Standards							Based upon the site observations and the discharges received, a potential exists for the release of hazardous substances. Further investigation is planned.
AOC 111	Storage and staging area - Storage pad and area	Chemical Storage Area	Undetermined	RI	10/9/2015			None	Not Applicable			Remediation Standards							Based upon the type of chemicals previously stored on the concrete pad, a potential exists for a release of hazardous substances. Further investigation is planned.
AOC 112	Other areas of concern - Underground piping including industrial process sewer	Unknown Pipeline Along Avenue B	Undetermined	RI	10/9/2015			None	Not Applicable			Remediation Standards							Based upon the close proximity of the unknown pipeline to the active pipelines in the area, further investigation is planned.
AOC 113	Other areas of concern - Other discharge area	2nd Reserve Tankfield Oil/Water Separator	Undetermined	RI	10/9/2015			None	Not Applicable			Remediation Standards							Based upon the site observations and the discharges received, a potential exists for the release of hazardous substances. Further investigation is planned.
AOC 114	Storage and staging area - Storage pad and area	Waste Water Treatment- Additive Area	No	No Sampling Trigger	10/9/2015			None	Not Applicable			Remediation Standards							No staining or evidence of a release was observed in the vicinity of the drums, totes, and pallets. Based upon the site observations, no further investigation is planned at this time.
AOC 115	Storage tank and appurtenance - Above ground storage tank	Diesel Powered Pump	No	No Sampling Trigger	10/9/2015			None	Not Applicable			Remediation Standards							No staining or evidence of a release of hazardous substances was observed in the vicinity of the pump. No further investigation is planned at this time.
AOC 116	Other areas of concern - Discolored area or spill area	Diesel Powered Emergency Generator	No	PA/SI	10/9/2015			None	Not Applicable			Remediation Standards							Soil investigations conducted near a diesel-powered emergency generator located near the South Dock area indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned. Soil investigations conducted near a diesel-pwered
AOC 117	Other areas of concern - Discolored area or spill area	Diesel Powered Emergency Generator.	No	PA/SI	10/9/2015			None	Not Applicable			Remediation Standards							Soli investigations contacted near a classer-power of emergency generator near Millwright's Shop indicate that contaminant concentrations are below applicable NJDEP standards. No further investigation is planned at this time.

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ATTACHMENT 2 SUMMARY OF HISTORIC SPILLS

Attachment 2 Summary of Historic Spills Hess Corporation - Port Reading Refinery 750 Cliff Road

Port Reading, Middlesex County, New Jersey

Year of Release	Date of Discharge	NJDEP Case #	Location / Source	Material/Amount Released	Description of Incident	Historic Spill
1969	10/30/1969	Not Reported	Tank 1214	8,000,000	Tank Failure	HS-1
1986	12/13/1986	86-12-13-1042	Terminal	100 Gallons	Spill unleaded gasoline	N/A
1986	12/23/1986	86-12-23-1451	Terminal	25 Gallons	Spill-Gasoline Spill-Gasoline	N/A
1987	1/20/1987	87-01-20-0948	Unknown	0	Liquid-Spill-Diesel Fuel. Contamination of water.	N/A
1987	2/11/1987	87-02-11-1613	Unknown	Unknown	Spill-Liquid-Oil Fuel & Kerosene, Oil Fuel #2	N/A
1987	4/22/1987	87-04-22-1923	Unknown	10-15 Gallons	Spill-Gasoline (Incident Name Furman Stoop)	N/A
1987	6/3/1987	87-06-03-2107	Unknown	30 Gallons	Spill-Liquid-#2 Fuel Oil / Spill shutdown of pumps	N/A
1987	8/19/1987	87-08-19-0502	Unknown	100 Gallons	Spill-Liquid-#2 Oil	N/A
1987	11/24/1987	87-11-24-1143	Unknown	1/2 ACRE	Spill-Liquid- Oil Ground Contamination (1/2 acre)	N/A
1988	5/24/1988	88-05-24-1606	Unknown	Not Reported	Spill- Sulfuric Acid	N/A
1988	7/13/1988	88-07-13-1534	2nd Reserve	10 Gallons	Spill-Liquid- Oil Fuel #2	N/A
1988	7/20/1988	88-07-20-0418	Unknown	Water, Waste	Spill of an Unknownnown amount of Waste	N/A
1988	8/12/1988	88-08-12-1137	Unknown	500,000/ Water	Spill - Noted as Water/non-hazardous	N/A
1988	9/4/1988	88-09-05-0900	Tank 1911	,	Overflow of equalization tank 1911 to secondary containment. On September 4, 1988 to September 5, 1988, a 2' line skim line was opened on Tank 1911 allowing water to flow into secondary containment. Process Water, Water (non-hazardous) Spill Contained. NJPDES Incident.	N/A
1989	4/10/1989	89-04-10-1817	Unknown	Unknown	LUST	N/A
1989	5/21/1989	89-05-21-0543	Unknown	Unknown	Spill-Liquid-Oil Fuel	N/A
1989	8/25/1989	89-08-25-1559	Unknown	1 Gallons -liquid	Spill, Equipment upset	N/A
1989	11/15/1989	89-11-15-1637	Unknown	Unknown	Liquid-Oil Fuel #4 / L.U.S.T.	N/A
1990	3/14/1990	90-03-14-1150	Degassing Drum	1 Gallons/disulfide oil	Disulfide oil was pressured to the degassing drum. A strong odor was evident in the Port Reading community, Upon inspection of the refinery it was found to come from 1 Gallons of disulfide oil released near the refinery's wet gas scrubber. The affected area of the site was treated with a biological deodorizer (Liquid Alive) and the area was flushed with water that was later treated at the Advanced Wastewater Treatment Plant. PR Fire Dept., and Health Dept. onsite for inspection.	N/A
1990	4/11/1990	90-04-11-1526	Unknown	Crude Oil	Notice of Violation (NOV) Second Reserve Terminal (NOV# 90-04-11-1526). The presence of hydrocarbon was discovered and reported to the NJDEP. Excavated soil was stored on plastic and the soil was sampled for disposal characterization. Preliminary fingerprint analysis of the hydrocarbon indicate the source of the crude oil to be from the Tank #1214 tank (8,000,000 Gallons crude oil tank) failure which occurred October 30, 1969.	N/A
1990	4/25/1990	90-04-25-0021	Tank 7934	840-1,680 Gallons/Gasoline	Corrosion of a bottom plate weld seam caused unleaded gasoline to leak. The tank rests on a concrete base, preventing vertical migration of product. Absorbent material was placed around the tank bottom/concrete base to contain and collect product. The tank was emptied by pumping remaining product into a nearby tank. Portions of still floor plates were replaced and bottom inner walls coated with epoxy paint to prevent corrosion.	HS-2(B)
1990	5/24/1990	90-05-24-1030	FCC Unit Turnaround	1 Gallons LNAPL observed in excavation	Free phase hydrocarbon was discovered while excavating a support structure (concrete footings) for a crane which will was to be used in the turnaround of the FCC Unit. A sample of oil was sent to Hess Laboratories, no source was conclusively identified, however a sewer line was uncovered during the excavation and is noted as a probable source, and the release appears to part of a past event.	N/A
1990	8/29/1990	90-08-29-1617	UST 012 and UST 014	Waste Oil, #3 Heating Oil	During UST removal, free product was observed in the tank excavations. UST 012 - 500 Gallons waste oil tank (approximately 6 Gallons of oil removed from the excavation); UST 014 - 2,000-Gallons No. 2 Fuel Oil tank (less than 1/2 Gallons released).	N/A
1991	1/28/1991	91-1-28-1002-17	Admin Build- Frozen Valve	10-50 Gallons of No.2 fuel oil	No.2 fuel oil used to heat the administration building was stored in three 500-Gallons ASTs. Water collected in a drain valve on the south tank and froze. As temperatures rose, the ice melted and oil leaked onto the ground and into a drainage ditch by the Conrail Tracks. A vacuum truck was dispatched to cleanup the spill. Absorbent pads were also used. The valve was replaced and containment for the tanks was installed.	HS-3
1991	1/29/1991	91-1-29-1048-46	Unknown	10 Gallons -Fuel Oil #2	Line leak - material is contained and being cleaned up	N/A
1991	4/26/1991	91-4-26-1742-24	API	80-90 Gallons	Spill-Liquid-Heating Oil- Spill due to heavy rain fall causing API Separator to overflow. Oil is contained in catch basin, cleanup in progress.	N/A
1991	5/14/1991	91-05-14-1356-45	Colonial Pipeline		Petroleum Hydrocarbons were observed in excavation along Colonial Pipeline Right-of-Way. The oily soil was encountered during the removal and replacement of an unused block valve with a spool piece on a section of their pipeline located near the refining facility wastewater treatment plant.	N/A
1991	9/25/1991	91-9-25-1014-00	API overflow to Smith Creek	500-700 Gallons/ light oil	As a result of heavy rainfall, the API separator overflowed. Light oil flowed into Smith Creek. Oil was contained and no navigable waters were affected. Flow of oil was diked with sand and a spill boom was deployed. Saturated sweep material containment area was erected. Vacuum trucks from Hess and Ken's Marina were dispatched to site for cleanup. Health Department was contacted and was satisfied with the cleanup.	HS-4(A)
1991	12/30/1991	91-12-30-1527-20	Unknown	42 Gallons -Oil JP-A	Hose crack - material was contained and cleaned up	N/A

Attachment 2 Summary of Historic Spills Hess Corporation - Port Reading Refinery 750 Cliff Road

Port Reading, Middlesex County, New Jersey

Section Processing Continues Processing Continues Processing Continues Processing and the section of the extension of a continue of the process of	Year of Release	Date of Discharge	NJDEP Case #	Location / Source	Material/Amount Released	Description of Incident	Historic Spill ID
## 17/19/19/2007 September 19/20 Septemb	1991	8/22/1991	91-08-22-1911-24	Unknown - Tank 017	Floating Oil -Unknown		N/A
Bod-9-1982 Bod-9-198-07 Bod from monogrand of line of an Express of Line of Line of Express of Line of Line of Express of Line of Express of Line of Express of Line of Line of Express of Line of Line of Express of Line of Li	1992	1/17/1992	92-1-17-1447-31	Tank 1220 Overfill	Approximately 1,260-Gallons of cat	Cat feed released to secondary containment area. Containment actions were implemented at Tank 1220 to minimize area potentially impacted by the release. Approximately 340-yards of impacted soils were disposed of at an approved	HS-5(A)
10/28/1992 92-10-28-1002-09 http://doi.org/10/28/1993 193-34-1010-00 Unknown 19 Galleron (R Q I) Spit-Ligate Spit-Unknown Spit-U	1992	6/3/1992	92-6-3-1318-27		No. 2 Oil	steam tracing, resulting in a buildup of pressure on the line causing flange leakage and line failure. A vacuum truck was dispatched to pump out the recovered oil line and stop the discharge. Approximately 20 yds. of crushed stone was	HS-6
Unicome bits of the part of th	1992	10/23/1992	92-10-23-1427-29	Unknown	3-5 Gallons -Fuel Oil #2	Product spilled under rack #4 due to operator error - in the process of being cleaned up	N/A
38/1993 93-8-1/190 00 Unknown 9 Gallone / EZ OII Sell-bused OII Park IT? Material is contained and being desired by classing investigated. Tank 1176-leak from 84 Gallone / No 2 Oil Sell-bused OII Park IT? Material is contained and being of desired by the between conceive support library and soliton skells highlight of storage lasts. The side of desired and sell-bused of 40 water was suitabled and 67 of water was pumped in the rain for host the product and solid per the desired part of the special or an extra part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of solid per the desired part of the product of the prod	1992	10/28/1992	92-10-28-1052-59	•	Unknown	past discharges to surrounding soils. Use of the section of the affected sewer system was discontinued, affected areas	HS-7
470/1993 93-4-0-505-57 Unknown 2 cil. Common of Tark 1176 beta from bottom 84 Gallons No 2 cil. Common of Tark 1176 beta from bottom 84 Gallons No 2 cil. Common of Tark 1176 beta from bottom 176 beta from bottom 2 cil. Common of Tark 1176 beta from underground 0° dia product and to stop from delicitage. The tark of control severe transferred to another tark. Tark 1176 was taken out of service under a common of the service under the product and to stop from the control of the service under the product and to stop from the parts could be compared. The tark from underground 0° dia product and to stop from the parts could be compared and distanced up underground 0° dia product and the parts could be compared and distanced up underground 0° dia product framefor product transfer product to enter the control of other products and there was no conflicted product transfer transfer transfer product to enter the control of other products and there was no conflicted product transfer transfer product transfer product transfer product to enter the control of other products and the examination of the stop of the	1993	1/28/1993	93-01-28-1023	Unknown	Unknown	UST- NFA Issued	N/A
## A001993 ## 93-420-1638-14 Dottom ## BC callorer No 2 oi. ## BC cal	1993	3/8/1993	93-3-8-1010-00	Unknown	5 Gallons / #2 Oil	Spill-Liquid-Oil Fuel #2- Material is contained and being cleaned up, cause of spill being investigated	N/A
T.R. Leak from underground 6" dis product transfer pipe and was selected on a concrete humanound area at the facility back loading rank. A laspection of the law baufance. Gasaline transfer was discontinued and the affected pipe section loadined. A vacuum truck was used at the sevent bown with because may be the sevent bown with because the base who will be cleaned up by Hess 1/28/1994 94-16-2354-25 Unknown 10 Gallons -Crude Oil Ruptire in bage fines — increde surface was completed. No surface water was impacted, and there was no of efficie impact. Tank 1216- leak from floating roof drain 1/28/1994 94-128-0737-38 Tank 1226- leak from floating roof drain 1/28/1994 94-128-139-52 Tank 1226- leak from floating roof drain 1/28/1994 94-26-139-52 Tank 1220- leak from floating roof drain 1/28/1994 94-26-139-52 Tank 1220- leak from floating roof drain 1/28/1994 94-26-139-52 Tank 1220- leak from floating roof drain 1/28/1994 94-26-139-52 Tank 1220- leak from floating roof drain 1/28/1994 94-26-139-52 Tank 1220- leak from World on Tank (8 mil capacity) 1/28/1994 94-26-139-52 Tank 1220- leak from World on Tank (8 mil capacity) 1/28/1994 94-50-1739-00 NA NA NA Case Transfer 1/28/1994 94-50-1739-00 NA NA NA Case Transfer 1/28/1994 94-10-3-019-3-3 Unknown 2 Gallons' gasoline 1/28/1995 94-10-3-019-3-3 Unknown 1 Gallons' gasoline 2/28/1996 94-03-05-00-3-3 Unknown 1 Gallons' gasoline of the conclusion was dependent on the service of the second product on minimally penotrated the conclusion was dependent on the service of the second product on minimally penotrated the conclusion was dependent on the service of the second product on minimally penotrated the conclusion of the second product on minimally penotrated the conclusion of the second product on minimally penotrated the conclusion of the second product on minimally penotrated the conclusion of the second product on minimally penotrated the conclusion of the second product on minimally penotrated the conclusion of the second product on minimally penotrated the c	1993	4/30/1993	93-4-30-1638-14		84 Gallons/ No 2 oil.	ring and bottom sketch plate of storage tank. The tank was isolated and 6" of water was pumped into the tank to float the product and to stop the discharge. The tank contents were transferred to another tank. Tank 1176 was taken out of	HS-8
TR. Leak from under transfer pipe and the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated that a mixture of gasoline and water drained into the server box from the vicinity indicated and the second properties and the second properties and the second properties gasoline and water drained in the second properties gasoline and water drained water drained and water drained water drained water drained because properties gasoline and water drained water drained water drained because properties gasoline and water drained water d	1993	8/23/1993	93-8-23-0952-57	Unknown	20 Gallons -Heavy Oil	Leak in pipe - material was contained and cleaned up	N/A
1/28/1994 94-01-28-0737-38 Tank 1216-leak from floating roof drain 1,000 Gallons/ gasoline 1	1993	10/21/1993	93-10-21-1435-21	underground 6" dia. product		of the oily water sewer box in the vicinity indicated that a mixture of gasoline and water drained into the sewer box from the subsurface. Gasoline transfer was discontinued and the affected pipe section isolated. A vacuum truck was used at the sewer box while cleanup of the gasoline on the concrete surface was completed. No surface water was impacted,	HS-10(A)
1/28/1994 94-01-28-0737-38 Tank 1218-leak from floating roof drain where floating roof drain are was leaded as condary containment area was leaved and confidence of the reference of draining-leak secondary containment area was leaved and contained several inches of accumulated rainwater at the time of discharge. Product floating on the contained water was recovered using a vacuum truck. Product did not contain the secondary containment area was leaved and contained several inches of accumulated rainwater at the time of discharge. Product floating on the contained water was recovered using a secure collected. Apparent control of the storage tank floor to shell weld resulted in a discharge of feedstock to the tank field secondary containment area. The discharged product minimally penetrated the containment soils. Water was pumped into the product above the corrosin area and terminate the discharge. The continets of the tank field secondary containment area. 10/3/1994 94-89-1543-00 N/A N/A N/A N/A Split Liquid-Oil 19 19 49-89-1543-00 Unknown 10/3/1994 94-10-3-0819-31 Secondary Containment area. 10/3/1994 94-10-3-0819-31 Secondary Containment behavior of the storage tank floor to shell weld resulted in a discharge of feedstock to the tank field secondary containment area. The discharged product minimally penetrated the containment soils. Water was pumped in the product sheet were removed and the product sheet and terminate the discharge. The containment area was leave the tank floor to shell weld resulted in a discharge of feedstock to the tank field secondary containment area. 10/3/1994 94-89-1543-00 Unknown 10/3/1994 94-89-1543-00 Unknown 10/3/1994 94-10-3-0819-31 Secondary Containment Area. 10/3/1995 95-2-2-066-27 Unknown 10/3/1995 95-2-2-066-27 Unknown 10/3/1995 95-2-2-066-27 Unknown 10/3/1995 95-3-7-0055-00 Unknown 10/3/1995 95-3-7	1994	1/6/1994	94-1-6-2354-25	Unknown	10 Gallons -Crude Oil	Rupture in barge hose - material contained and will be cleaned up by Hess	N/A
4/26/1994 94-26-1139-52 Tank 1220- leak from Weld on Tank (8 mil capacity) 5/20/1994 94-520-1730-00 N/A N/A Case Transfer do another tank. The discharged product above the corrosion area and terminate the discharge. The contents of the tank were transferred to another tank. The affected soils were removed and disposed of at an approved treatment facility. 5/20/1994 94-5-20-1730-00 N/A N/A N/A Case Transfer 5/20/1994 94-9-1543-00 Unknown 2 Gallons Spill-Liquid-Oil Puel #2-SPILL CAUSED BY BURP IN HOSE. CLEAN UP WAS COMPLETED BY HESS. Contamination of Water Spill-Liquid-Oil Puel #2-SPILL CAUSED BY BURP IN HOSE. CLEAN UP WAS COMPLETED BY HESS. Contamination of Water at Tank 7914 (Spill to Secondary Containment Area) 10/3/1994 94-10-3-0819-31 Leak from recovered oil Secondary Containment Area 10/13/1994 94-10-13-1053-23 Unknown 15 Gallons Heavy Oil Unknown 4-1 Gallons/ Jet-A Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup Personal and hydro tested prior to recommissioning. Small discharge of recovered oil to the tank field secondary Containment area. The discharged free covered oil be tank field secondary Containment area. 3//1995 95-3-7-0055-00 Unknown 4-1 Gallons/ Jet-A Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup N/A 3//1995 95-3-7-0055-00 Unknown 4-1 Gallons/ Jet-A Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup N/A 3//1995 95-3-7-0055-00 Free from 2 dia. Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup N/A 3//1995 95-3-8-005-00 Unknown 4-1 Gallons/ Jet-A Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup N/A 3//1995 95-3-18-1523-44 (a.k.a. 95 3-18-1523-44) (a.k.a. 95 3-18-152	1994	1/28/1994	94-01-28-0737-38			accumulation of water which could sink the roof. 2 - 3 roof drain swivel joints failed, allowing stored product to enter the roof drainpipe and drain to the tank field secondary area. The tank field secondary containment area was ice covered and contained several inches of accumulated rainwater at the time of discharge. Product floating on the contained water was recovered using a vacuum truck. Product did not contact the secondary containment area due to the water and ice,	HS-11
8/9/1994 94-8-9-1543-00 Unknown 2 Gallons Splil-Liquid-Oil Fuel #2- SPILL CAUSED BY BURP IN HOSE. CLEAN UP WAS COMPLETED BY HESS. Contamination of Water for Water 10/3/1994 94-10-3-0819-31 Leak from recovered oil line at Tank 7914 (Spill to Secondary Containment Area) 10/13/1994 94-10-3-0819-31 Unknown 15 Gallons - Heavy Oil Unknown 22/2/1995 95-2-2-0626-27 Unknown 15 Gallons - Heavy Oil Unknown 23/7/1995 95-3-7-0055-00 Unknown Hydrogen Suffide, Liquid Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup in progress N/A 13/18/1995 95-3-18-1523-44 (a.k.a. 95 3-18-1523-41) 3/18/1995 95-3-18-1523-44 (a.k.a. 95 3-18-1523-41) 3/18/1995 95-3-18-1523-44 (a.k.a. 95 3-18-1523-44) 3/18/1995 95-3-18-1523-44 (a.k.a. 95 3-18-15	1994	4/26/1994	94-4-26-1139-52		84 Gallons/ cat feed	tank field secondary containment area. The discharged product minimally penetrated the containment soils. Water was pumped into the storage tank to float the product above the corrosion area and terminate the discharge. The contents of the tank were transferred to another tank. The affected soils were removed and disposed of at an approved treatment	HS-5(B)
10/3/1994 94-10-3-0819-31 Leak from recovered oil line at Tank 7914 (Spill to Secondary Containment Area) Leak from recovered oil seaked from a corroded section of 3-inch diameter aboveground insulated transfer pipe near Tank 7914. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe, Affected soils were removed and disposed of at an approved treatment facility, Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. Small discharge of recovered oil to the tank field secondary containment area. 10/13/1994 94-10-13-1053-23 Unknown 15 Gallons-Heavy Oil Unknown cause spill - material is contained and cleaned up 5. Pill-Liquid-Oil Jetr-A-Leaky flange caused spill. RP handling cleanup N/A 37/1995 95-22-0626-27 Unknown Hydrogen Sulfide, Liquid Spill due to leak in 2" pipe - cleanup in progress 1 Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) 1 Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) 1 Tank 7914- Leak from slurry oil and standard product release. A vacuum truck was used to remove residual apetroleum from the pipe, Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. 1 Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) 1 Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) 1 Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) 1 Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) 1 Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) 1 Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment wall and the shell of Tank 7914. The oil in the l	1994	5/20/1994	94-5-20-1730-00	N/A	N/A	Case Transfer	N/A
Leak from recovered oil line at Tank 7914 (Spill to Secondary Containment Area) Leak from recovered oil line at Tank 7914 (Spill to Secondary Containment Area) Leak from recovered oil leaked from a corroded section of 3-inch diameter aboveground insulated transfer pipe near Tank 7914. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. Small discharge of recovered oil to the tank field secondary containment area. 10/13/1995 95-22-20626-27 Unknown 15 Gallons -Heavy Oil Unknown cause spill - material is contained and cleaned up N/A 3/7/1995 95-37-0055-00 Unknown 4 Hydrogen Sulfide, Liquid Spill due to leak in 2° pipe - cleanup in progress 10/0 Gallons/ recovered oil to the tank field secondary containment area. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. 10/18/19/19/19/19/19/19/19/19/19/19/19/19/19/	1994	8/9/1994	94-8-9-1543-00	Unknown	2 Gallons		N/A
2/2/1995 95-2-2662-27 Unknown < 1 Gallons/ Jet-A Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup N/A 3/7/1995 95-3-7-0055-00 Unknown Hydrogen Sulfide, Liquid Spill due to leak in 2" pipe - cleanup in progress N/A Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) An 8-inch diameter aboveground slurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil not the secondary Containment Area) An 8-inch diameter aboveground slurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil not the secondary Containment Area) An 8-inch diameter aboveground slurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil the secondary Containment Area) An 8-inch diameter aboveground slurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil the secondary Containment Area) HS-12(A) HS-9(C) HS-9(C)	1994	10/3/1994	94-10-3-0819-31	at Tank 7914 (Spill to Secondary Containment	25 Gallons/ recovered oil	Recovered oil leaked from a corroded section of 3-inch diameter aboveground insulated transfer pipe near Tank 7914. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. Small discharge of recovered oil to	HS-9(B)
3/7/1995 95-3-7-0055-00 Unknown Hydrogen Sulfide, Liquid Spill due to leak in 2" pipe - cleanup in progress Spill due to leak in 2" pipe - cleanup in progress Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia. skimmed oil transfer line cracked between two 45° stub-out flanges spraying slurry oil onto the terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. An 8-inch diameter aboveground slurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil onto the secondary containment wall and the shell of Tank 7914. The oil in the line was heated by steam tracing, resulting in a buildup of pressure on the line causing line failure. The pipe section was isolated and steam tracing was secured once the discharge was discovered. Impacted soils, crushed stone, and absorbent material was removed and disposed of at an approved treatment facility. One 12-foot section of transfer pipe was replaced, eliminating the 45° stub-outs. Each pressure relief valve on the slurry oil transfer line was inspected and either cleaned or replaced if plugged. HS-12(A)	1994	10/13/1994	94-10-13-1053-23	Unknown	15 Gallons -Heavy Oil	Unknown cause spill - material is contained and cleaned up	N/A
Tank 7908- leak from 2" dia skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7908- leak from 2" dia skimmed oil transfer line transfer line from a process water storage tank resulted in a discharge of recovered oil to the tank field secondary containment area. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. An 8-inch diameter aboveground oil skimmer transfer line from a process water storage tank resulted in a discharge of recovered oil to the tank field secondary containment area. The leaking pipe section was isolated. HS-12(A) Tank 7914- Leak from slurry oil onto the secondary containment area. The leaking pipe section was isolated and secondary containment area. Tank 7914- Leak from 2" dia skimmer transfer line casched between two 45° stub-out flanges spraying slurry oil onto the secondary containment area. Tank 7914- Leak from 3 lurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil onto the secondary containment area. An 8-inch diameter aboveground disposed of at an approved treatment was used to remove residual petroleum from the pipe. Affected soils and hydro tested prior to recommissioning. An 8-inch diameter aboveground valury oil tra	1995	2/2/1995	95-2-2-0626-27	Unknown	< 1 Gallons/ Jet-A	Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup	N/A
3/18/1995 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 95-03-07-0055-00 100 Gallons/ recovered oil 100 Gallons/ recovered oil 100 Gallons/ recovered oil 100 Gallons/ recovered oil to the tank field secondary containment area. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced An 8-inch diameter aboveground slurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil onto the secondary containment wall and the shell of Tank 7914. The oil in the line was heated by steam tracing, resulting in a buildup of pressure on the line causing line failure. The pipe section was isolated and steam tracing was secured once the discharge was discovered. Impacted soils, crushed stone, and absorbent material was removed and disposed of at an approved treatment facility. One 12-foot section of transfer pipe was replaced. HS-9(C)	1995	3/7/1995	95-3-7-0055-00	Unknown			N/A
Tank 7914- Leak from slurry 95-3-18-1523-44 (a.k.a. 95 3-18-152341) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary Containment Area) HS-9(C)	1995	3/7/1995	95-03-07-0055-00	skimmed oil transfer line (Spill to Secondary	100 Gallons/ recovered oil	discharge of recovered oil to the tank field secondary containment area. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced	HS-12(A)
Codiff Light Works by district Light and the first trade of the control of the co	1995	3/18/1995	1	oil line adjacent to tank (Spill to Secondary	50-100 Gallons-Oil Slop or slurry oil	the secondary containment wall and the shell of Tank 7914. The oil in the line was heated by steam tracing, resulting in a buildup of pressure on the line causing line failure. The pipe section was isolated and steam tracing was secured once the discharge was discovered. Impacted soils, crushed stone, and absorbent material was removed and disposed of at an approved treatment facility. One 12-foot section of transfer pipe was replaced, eliminating the 45° stub-outs. Each	HS-9(C)
4/3/1996 96-4-3-1527-36 QC Lab 1 Qt Spill-Liquid-Waste Industrial- Lab tech testing sample of storm water in cylinder. Cylinder broke, causing spill, cleanup N/A completed				ŕ		, , , , , ,	
Call I family Marks for Artists for the street and the street and the street and the street of the s	1995 1995 1995	2/2/1995 3/7/1995 3/7/1995	95-2-2-0626-27 95-3-7-0055-00 95-03-07-0055-00 95-3-18-1523-44 (a.k.a. 95-	Unknown Unknown Unknown Tank 7908- leak from 2" dia. skimmed oil transfer line (Spill to Secondary Containment Area) Tank 7914- Leak from slurry oil line adjacent to tank (Spill to Secondary	15 Gallons -Heavy Oil < 1 Gallons/ Jet-A Hydrogen Sulfide, Liquid 100 Gallons/ recovered oil 50-100 Gallons-Oil Slop or slurry oil	the tank field secondary containment area. Unknown cause spill - material is contained and cleaned up Spill-Liquid-Oil Jet-A-Leaky flange caused spill. RP handling cleanup Spill due to leak in 2" pipe - cleanup in progress Corrosion of 2-inch diameter aboveground oil skimmer transfer line from a process water storage tank resulted in a discharge of recovered oil to the tank field secondary containment area. The leaking pipe section was isolated, terminating the product release. A vacuum truck was used to remove residual petroleum from the pipe. Affected soils were removed and disposed of at an approved treatment facility. Approximately one 30-foot section of pipe was replaced and hydro tested prior to recommissioning. An 8-inch diameter aboveground slurry oil transfer line cracked between two 45° stub-out flanges spraying slurry oil onto the secondary containment wall and the shell of Tank 7914. The oil in the line was heated by steam tracing, resulting in a buildup of pressure on the line causing line failure. The pipe section was isolated and steam tracing was secured once the discharge was discovered. Impacted soils, crushed stone, and absorbent material was removed and disposed of at an approved treatment facility. One 12-foot section of transfer pipe was replaced, eliminating the 45° stub-outs. Each	

Attachment 2 Summary of Historic Spills Hess Corporation - Port Reading Refinery 750 Cliff Road Port Reading, Middlesex County, New Jersey

Year of Release	Date of Discharge	NJDEP Case #	Location / Source	Material/Amount Released	Description of Incident	Historic Spil
1997	8/16/1997	97-8-16-0133-57	Sour Water Stripper	NONE	Equipment maintenance on sour water stripper - non-emergent situation	N/A
1997	10/10/1997	97-10-10-2359-11	Cat feed pump	undetermined	A fire was detected in the facility's main cat feed/ charge pump. The feed was terminated and the fire extinguished. An inspection of the fire site revealed a minor spillage of oil into the pump pad containment area. All liquid was quickly cleaned up from the containment area and transferred to the facility slop oil tank for eventual processing. Generated oil and debris were disposed of at an approved treatment facility.	HS-12(C)
1997	11/7/1997	97-11-7-1647-46	VRU Containment Area	50 Gallons (minimum) -gasoline	Liquid gasoline was observed being discharged from the Port Reading Rack VRU vent pipe. The VRU was shut down and the discharged ended. An inspection of the spill site immediately afterward revealed a discharge of gasoline into the VRU containment area. All liquid gasoline was quickly cleaned up from the containment area and transferred to the facility slop oil tank for eventual reprocessing, All contaminated soil and debris recovered were disposed of at an approved treatment facility.	HS-13
1998	4/2/1998	98-04-02-0944-48	Tank 1911 (Wastewater transferred to secondary containment area)	100,000 Gallons/ wastewater	Excess wastewater from the refinery's wastewater equalization tank, Tank 1911, was temporarily transferred to the adjacent secondary containment system. This measure was taken to avoid overflowing and damaging the tank. The wastewater was pumped back into the Tank 1911 once tank space became available.	HS-14
1999	6/17/1999	99-06-17-1531-33	Unknown	Unknown	MATERIAL IS DRIPPING FROM A WELD IN THE PIPELINE, Contamination of Water, Land	N/A
1999	9/8/1999	99-09-08-0912-31	Unknown	Not Reported	HOSE FAILED DURING TRANSFER FROM A TANKER CAUSING SPILL.CLEAN UP BEING DONE	N/A
2000	5/14/2000	00-05-14-2106-28	Aeration Basins (Wastewater Treatment Unit)	50 Gallons/ petroleum impacted wastewater	During a routine inspection, the wastewater operator identified that the lift sump X-1908 was overflowing. The recirculation water was shut off immediately. A vacuum truck was dispatched to enhance free product recovery. A shallow trench along the fence line was installed. All water and product that entered the trench was recovered using a vacuum truck. All impacted soil was disposed of at an approved treatment facility.	HS-15
2000	6/27/2000	00-06-27-2213-37	Unknown	Unknown	Information redacted due to data corruption causing reporting status errors.	N/A
2000	6/27/2000	00-06-27-1224-37	Unknown	Unknown	Information redacted due to data corruption causing reporting status errors.	N/A
2000	12/26/2000	00-12-26-1950-59	Unknown	Unknown	Information redacted due to data corruption causing reporting status errors.	N/A
2002	3/26/2002	02-03-26-1530-26	TK 7906	Unknown	Soil Contamination at Tk 7906 under tank bottom soil contamiN/Ation. Cleanup has been done.	N/A
2002	5/28/2002	02-05-28-1640-14	Tank 1210 - overfill (Spill to Secondary Containment Area)	420 Gallons/ Algerian Resid (FCC feedstock)	While receiving a shipment of Algerian Resid from vessel M/V Corcovado, an overflow occurred through the gauging hatch of the tank. The spilled oil was contained within the secondary containment system of Tank 1210. Absorbent material was immediately deployed to consolidate area. Free product was removed by a vacuum truck. Stained stone and soil was removed and disposed of at an approved treatment facility. Closure requested 6/21/2002, no response to date.	HS-16
2003	3/5/2003	03-03-05-1056-48	Unknown	Unknown	Spill is due to an idling engine - sheen on roadway - cleanup in progress	N/A
2003	6/16/2003	03-06-16-1258-24	6" dia. Transfer Pipeline adjacent to Avenue B	210 Gallons gas (3 separate locations	Premium gasoline at three locations along transfer pipeline. Release occurred at 1 blind flange (126 Gallons) and 2 bleeder valves (42 Gallons x 2). Transfer shutdown immediately upon discovery. Contaminated stone and soil was removed areas, locations then flooded with water to float any residual product and then recovered by tanker truck. An approximate 10 Gallons was recovered from sewer by vacuum tanker truck. Vertical migration inhibited by underlying clay layer. Approximately 60 yds. of contaminated soil were removed for disposal.	HS-17
2003	10/16/2003	03-10-16-1147-39	1 Hess Plaza	Unknown	COMPANY INSPECTED EMPTY TANK THAT AT ONE TIME CONTAINED SOUR WATER AND FOUND HOLES IN SAME.NO CONTAMINATION FOUND AT THIS TIME	N/A
2004	3/22/2004	04-03-22-0918-37	Transfer line between Tank 1218 and vessel S-1945	10 Gallons/ wastewater equalization tank sludge	A 8-inch transfer pipe was found leaking that traveled from TK-1218 to the wastewater bioreactor S-1945. At the time of the leak the ground was flooded with rain and snow melt. On 3/22/2004 the area dried up and layer of sludge was observed from the settled material in the tank from the storage process. When disposed of separately, this sludge is listed as a hazardous waste (F038). The contaminated stones and soil were removed and disposed of as hazardous waste in a total of (5) drums. The affected sections of pipe were replaced prior to the start-up of the of the water transfer.	N/A
2004	3/29/2004	04-03-29-1202-26	Tank 7935 foundation	1-2 Gallons impacted bottom water/ gasoline	CONCRETE RING WALL SHOWING 3 FT WIDE SECTION OF MOISTURE. SUSPECT TANK BOTTOM MAY BE LEAKING. NO HAZMAT DISCHARGE AT THIS TIME. TANK BEING TAKEN OUT OF SERVICE. TANK IS 140,000 BARREL ABOVE GROUND TANK.*** Follow up**During a daily tank field inspection, about 5 feet of a foundation ring wall on the north side of the gasoline tank TK-7935 was observed to be wet with tank water bottoms, no evidence of hydrocarbons product in the leak area. The tank was pumped out to other storage tanks and 2 barges. After the tank is emptied and cleaned, the preliminary inspection revealed a 1-inch diameter corrosion area that has a hole through the corner weld of the tank. Tank was taken out of service for inspection and repair.	N/A
2004	6/11/2004	04-06-11-0900-47	Unknown	Unknown	OIL SHEEN ON ROADWAY AND MINOR AMOUNT GOING TO CREEK. MATERIAL SUSPECTED TO BE ROAD OIL	N/A
2004	8/4/2004	04-08-04-1413-33	Unknown	Unknown	RELEASE IS DUE TO A PIN HOLE LEAK THAT DEVELOPED WHEN CLAMPING A LINE. REPAIRS ARE IN PROGRESS. NON EMERGENT SITUATION.	N/A
2004	10/19/2004	04-10-19-1625-01	Tank 1201- small hole located in the bottom plate		200,000 BARREL ABOVE GROUND STORAGE TANK SUSPECTED OF LEAKING. CALLER STATES THAT FURTHER TESTS OF TANK AND SOIL ARE NEEDED TO DETERMINE IF PRODUCT OR WATER HAVE LEAKED. TANK HAS BEEN EMPTIED.—Follow up -During a periodic inspection of TK-1201, there were several small holes found in the floor of the tank. Coupons (access holes) were cut into the floor around the holes to inspect the concrete area. No evidence of a discharge of gasoline was found with a PID. Paul Bucknam sent a letter to DEP asking for a closure of the case number on 11/16/04.	N/A

Attachment 2 Summary of Historic Spills Hess Corporation - Port Reading Refinery 750 Cliff Road

Port Reading, Middlesex County, New Jersey

Year of Release	Date of Discharge	NJDEP Case #	Location / Source	Material/Amount Released	Description of Incident	Historic Spill ID				
2004	10/29/2004	04-10-29-1611-19	Tank 1233 - several small holes were found in bottom plate		During a periodic inspection of tank 1233, there were several small holes found in the floor of the tank. The tank bottom was replaced and no signs of contamination or release were found under the floor. Paul Buckman sent a letter to the DEP requesting case closure 1/7/2005	N/A				
2005	11/4/2005	05-11-04-1342-02	Unknown	Unknown	PUMP FAILED ON GASLINE CAUSING IT TO SPILL INTO TANK FIELD. CLEAN UP IN PROGRESS.	N/A				
2006	5/25/2006	06-05-25-1243-17	Fuel Line from Diesel Pump	Approximately 1-Gallons of diesel fuel	A fuel line from a diesel pump cracked causing a spill. The spill was cleaned up and the pump line was repaired.	HS-10(B)				
2006	10/6/2006	06-10-06-1100-11	Cliff Rd	1 Gallons diesel	Customer's truck leaked diesel fuel while entering the refinery and leaked approximately 1 Gallons of diesel fuel on Cliff Rd. Hess personnel used absorbent pads and granular absorbent material, were used to remove the product from the pavement. No soils were impacted. The spill occurred during a rain event and a slight sheen was observed. Hess personnel inspected the discharge point and no sheen was seen. Hess contends closure, and requested closure in a 11/21/06 letter.	N/A				
2007	2/21/2007	07-02-21-1431-44	Hess Refinery 1 Hess Plaza	Unknown	HISTORIC SPILL IN A DRAINAGE DITCH THAT IS CONTAINED ON LAND. CLEANUP IS PENDING.	N/A				
2007	3/9/2007	07-03-09-1437-52	Tank 1219 (Spill primarily to Secondary Containment Area)							
2007	4/15/2007	07-04-15-1803-38	Waste Water Treatment	Wastewater	TO AVOID 1/3000000 Gallons STORAGE TANK TO OVERFLOW DUE TO EXCESSIVE RAIN, FACILITY ALLOWED <100000 Gallons OF MATERIAL TO FLOW INTO CONTAINMENT AREA. WILL PUMP MATERIAL BACK INTO TANK WHEN ABLE.	N/A				
2007	5/11/2007	07-05-11-1330-47	Leaking Subsurface Sulfuric Acid Drain Pipe	Unknownnown amount of sulfuric acid	In May 2007, a leaking drain pipe was identified within the Alkylation Unit area. The drain pipe was utilized to drain sulfuric acid in the Alkylation Unit. Upon identifying the release, HC-PR repaired the drain pipe and excavated approximately 6 cubic yards of soil.	HS-19				
2007	5/24/2007	07-05-24-0922-16	Haz-Mat Environmental Group tanker truck spills spent sulfuric acid on Cliff Road	15 Gallons of spent sulfuric acid	The spilled acid left a trail on the pavement as it began to leave the Hess Refinery. Hess personnel alerted the driver after the truck proceeded approximately 200ft. Hess personnel applied sodium bicarbonate to the asphalt to neutralize and absorb the acid. The spent sodium bicarbonate was transferred to drums for disposal. There are no impacts to soil or water. All material was contained and fully cleaned up. Police and Fire departments were notified and responded to the release. They were both satisfied with the cleanup. Hess is not the responsible party and requested closure of the case number on June 15, 2007.	N/A				
2007	5/24/2007	07-05-24-1025-52	Unknown	Unknown	TANKER LID POPPED OPEN AT FACILITY CAUSING A SPILL . CLEAN UP IS IN PROGRESS.	N/A				
2007	9/26/2007	07-09-26-1907-19	Unknown	Unknown	OPERATOR ERROR CAUSED SPILL FROM VEHICLE TRANSFER HOSE. CLEAN UP COMPLETED.	N/A				
2007	10/3/2007	07-10-03-1514-19	Truck Loading Rack - Sodium Hydroxide underground release	Unknownnown (suspected 20	Cracked underground drain pipe that was used to drain the acid/caustic truck loading rack containment area to a neutralization pit. The drain line received storm water runoff from the loading rack area. A high pH value (11.24) was detected in subsurface soil, near the cracked line. It is therefore suspected that Sodium Hydroxide was released into the soil. Soil testing was performed to determine if a discharge occurred. The neutralization pit was emptied to perform repairs to the drainage line.	N/A				
2007	11/1/2007	07-11-01-1625-32	Soil near API Separator	Approximately 2-Gallons of oil	An oily discolored soil was encountered near the API oil/water separator during November 1, 2007 excavation activities. The neutralization pit was emptied to perform repairs to the drainage line. The drainage line was excavated and the line repaired. Soil contamination to be addressed as part of remediation program. Approximately 15 yards of petroleum impacted soil was transported to Cycle Chem of Elizabeth, New Jersey for proper disposal. EnviroTrac collected one soil sample from approximately 6.0 fbg. The sample was below the most stringent NJDEP SCC.	HS-4(B)				
2008	2/11/2008	08-02-11-0854-44	Flare Knock-out Drum	1786 Gallons of Water/Hydrocarb on Mixture	A 1.5 inch diameter section of piping covered in insulation and connected to a site glass corroded and caused a leak. The leak occurred due to internal corrosion. The line was replaced, and will be inspected via x-ray technology on a 5 year basis.	N/A				
2008	8/14/2008	08-08-14-0949-36	Southwest corner of Loading Rack Tank Field (Spill to Secondary Containment Area)		It is suspected that a small quantity of gasoline was resident in the storm water sewer system after tank bottom water draining and the material backed out of the storm sewer system during a rainfall event. During the initial assessment, one possible cause under review was a possible leak from an underground pipeline. The pipeline was confirmed to be sound and not the cause of the release. Procedures for draining tank bottom water will be reviewed to prevent a reoccurrence. Closure requested 9/11/2008	HS-20				
2008	12/12/2008	08-12-12-1134-15	Waste Water Treatment	Unknown	Equipment Upset- DUE TO RAIN WASTE WATER WAS BYPASSED TO SECONDARY CONTAINMENT	N/A				
2009	2/15/2009	09-02-15-1527-23	Unknown	Unknown	DURING INSPECTION OF STORAGE TANK WATER WAS FORCED INTO TANK REVEALING SMALL AMOUNTS OF MOISTURE ON BOTTOM OUTSIDE WALL. TANK IS OUT OF SERVICE FOR MAINTENANCE.	N/A				
2009	5/19/2009	09-05-19-1218-35	Tank #7930	Estimated 5 Gallons Gasoline	HOLE FOUND UNDER EMPTY 1.88 MILLION Gallons STORAGE TANK. SPILL CONTAINED TO CONFINEMENT AREA. Hole discovered in the water draw sump, gasoline impacted water was identified entering the sump. Approximately 2.5 feet of impacted soil was removed. Soil sample 7930 Sump PE-1 was collected and analyzed for VO+10. The results indicated several compounds above the NJDEP IGWSRS. On October 28, 2009, one (1) temporary monitoring well (Tank 7930-TW-1) was installed. The sample was analyzed for VO+10, BN+15. The results indicate that all results are below the NJDEP GWQS.	HS-21				

Attachment 2 Summary of Historic Spills Hess Corporation - Port Reading Refinery 750 Cliff Road Port Reading, Middlesex County, New Jersey

Year of Release	Date of Discharge	NJDEP Case #	Location / Source	Material/Amount Released	Description of Incident	Historic Spill ID
2009	12/29/2009	09-12-29-1109-47	Detention Basin	1 Gallons residual oil	STORM WATER WAS BEING PUMPED FROM TANK FARM AREA TO HOLDING POND AND CAUSING A SPILL. CLEAN UP IN PROGRESS. During a storm event, approximately 1 Gallons of residual oil became entrained with storm water runoff within an onsite storm sewer line. The oil collected along the bank of the Refinery's onsite storm water collection basin. A vacuum truck was deployed to remove the oil that was present. Oil absorbent pads were also utilized to remove any detectable oil. Some minor soil excavation was performed. The cleanup was completed on 12/29/09. (Previously Associated with HS-14)	N/A
2010	10/5/2010	10-10-05-1218-03	Unknown	Unknown	CRACK IN PRODUCT LINE CAUSED SMALL OIL SHEEN INSIDE CONTAINMENT BOOM. CLEAN UP IN PROGRESS.	N/A
2011	7/6/2011	11-07-06-1015-30	Unknown	Unknown	STORAGE TANK HAS PIN HOLE LEAK. TANK BEING EMPTIED. NOTHING SPILLING AT THIS TIME. TANK HAS 6 FOOT OF PRODUCT IN TANK	N/A
2011	10/5/2011	11-12-06-1430-51	North Drainage Ditch	Less than 2 square yards of bacterial surface sheen.	During an inspection of the North Drainage Ditch a sheen of Unknown origin was observed in the tidal ditch located north-west of Landfarm Number 1 and north-east of the Dredge Spoils Area. Ken's Marine brought in to assist with cleanup. A sheen was noted in the water, mostly under the South Dock. A length of absorbent boom was placed across the ditch and around the sheen and absorbent pads were placed directly on the sheen however, the sheen did not adsorb onto the pads or exhibit other properties of petroleum. Multiple samples were collected analyzed indicating a robust bacterial community and library search compounds existing at levels less than applicable standards or non-detect. Groundwater nearby Number 1 Landfarm continues to be monitored on a quarterly basis. Closure Requested 05/29/12.	N/A
2012	2/15/2012	12-02-15-1003-11	750 Cliff Road	Unknown	SHEEN WAS OBSERVED DURING EXCAVATING NEAR LAND. SIZE 40 X 40 FEET CLEANUP IN PROGRESS	N/A
2012	7/15/2012	12-07-15-0831-12	Unknown	Unknown	SPILL DUE TO LEAKING FUEL PUMP ON WATER SYSTEM. CLEANUP COMPLETE.	N/A
2012	7/17/2012	12-07-17-2041-54	Unknown	Unknown	CALLER REPORTS A MINOR SPILL FROM A FUEL LINE AT THE LOCATION GIVEN. SPILL HAS BEEN CONTAINED AND CLEAN UP IN THE PROCESS.	N/A
2012	7/28/2012	12-07-28-1822-18	Unknown	Unknown	CALLER IS REPORTING A MINOR SPILL OF FUEL. CLEAN UP PENDING.	N/A
2012	8/23/2012	12-08-23-2241-45	Unknown	Unknown	CALLER IS REPORTING A MINOR SPILL AFTER PRODUCT TRANSFER. CLEAN UP UNDERWAY.	N/A
2012	10/3/2012	12-10-03-1111-37	Truck Loading Rack	Unknown	DISCHARGE FROM TANKER TRUCK HOSE AND LOADING CONNECTION. FIRE ON SCENE HOSING DOWN CONNECTION TILL THE PRESSURE IN TANKER GO DOWN. CLEANUP PENDING	N/A
2012	10/5/2012	12-10-05-1209-41	Unknown	Unknown	SPILL FROM EQUIPMENT. CLEANUP UNDERWAY	N/A
2013	3/7/2013	13-03-07-1900-54	Unknown	Unknown	CALLER IS REPORTING A SPILL OF DIESEL DURING FUELING.	N/A
2013	6/20/2013	13-07-24-1427-02	QC Lab	UST Removal	Removal of one 10,000 Gallons waste oil UST.	N/A
2013	8/6/2013	13-08-06-1704-56	Unknown	Unknown	CALLER REPORTS A LEAK FROM AN ABOVE GROUND STORAGE TANK. CLEAN UP IS PENDING.	N/A
2014	1/16/2014	14-01-16-1548-39	Near Tank 1221	200-300 Gallons-waste oil/water	Pipe leaked between T 1218 and WWTP. Leak occurred within 3rd Tank field between Tank 1221 and dike wall	N/A

ATTACHMENT 3

LNAPL/GROUNDWATER GAUGING TABLE

Figure 3.1 – Sitewide Historic LNAPL Gauging Results

Table 3.1 – Historic LNAPL Gauging Results

Table 3.2 – 2019 Annual Groundwater Gauging Results

Table 3.3 – Monthly Groundwater Gauging Results (2nd Quarter 2020)

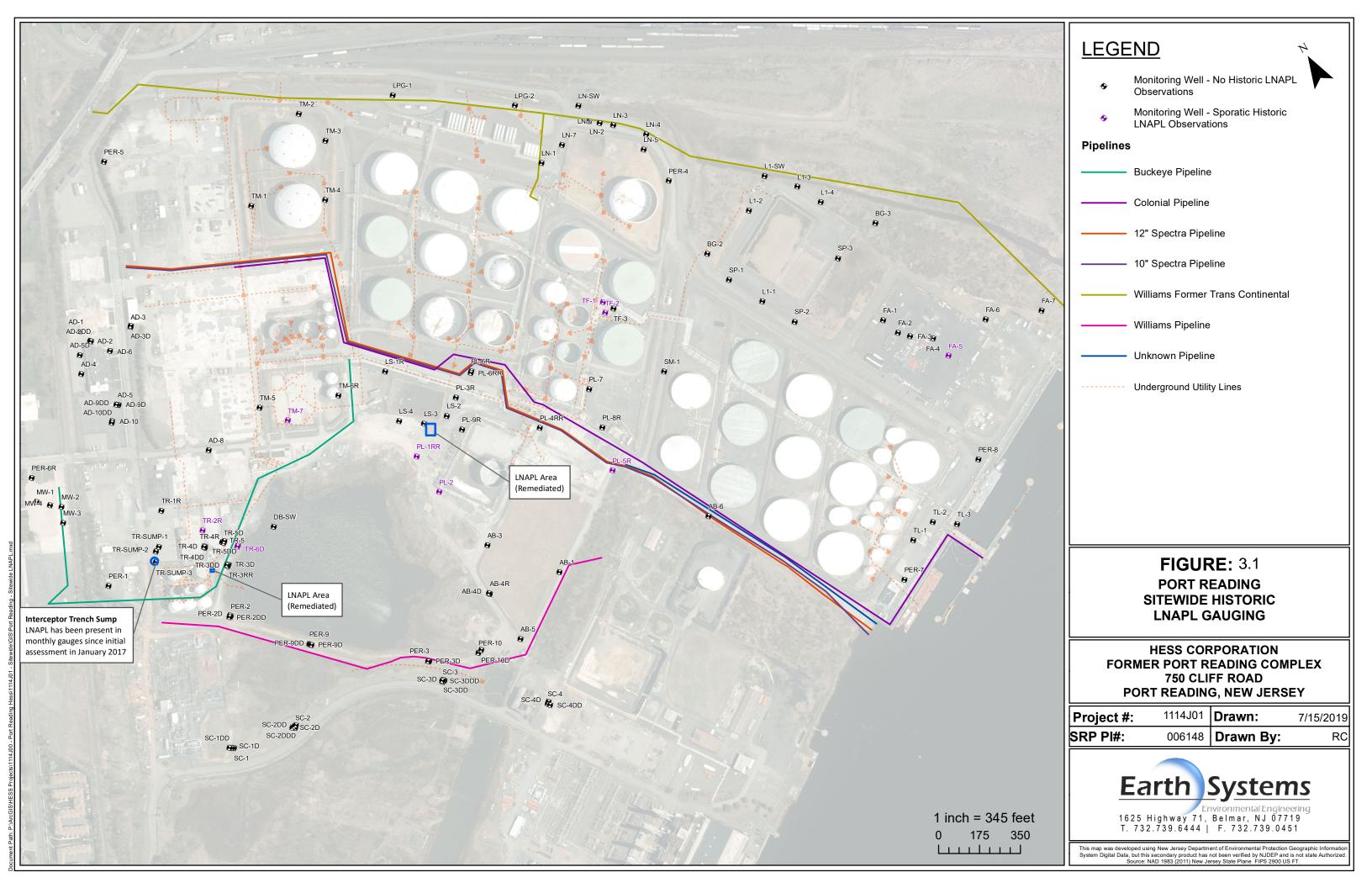


Table 3.1

Monitoring Well Gauging Table - Historic LNAPL

Hess Corporation - Former Port Reading Complex

750 Cliff Road

Port Reading, Middlesex County, New Jersey

First Quarter		2015			2016			2017			2018			2019			2020	
riist Quarter	January	February	March															
PL-1RR	0.00	0.00	0.00	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	0.00	0.02	Sheen	0.00	0.00	0.00	0.00	0.00	0.00
PL-2	0.02	0.02	0.02	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	0.00	0.00	0.00	0.00	0.00	0.00
PL-5/PL-5R	NA	NA	NA	NA	NA	NA	0.00	0.00	0.00	1.63	NM	1.25	0.02	0.00	0.00	0.00	0.00	0.00
TF-1	NM	NM	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TF-2	NM	NM	0.24	NM	NM	NM	0.02	NM	NM	0.02	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00
TM-7	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00
TR-2R	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00
TR-6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TR-6D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Second Quarter		2015			2016			2017			2018			2019			2020	
	April	May	June	April	May	June	April	May	June	April	May	June	April	May	June	April	May	June
PL-1RR	NM	NM	0.00	Sheen	Sheen	Sheen	0.00	Sheen	0.01	Sheen	Sheen	NM	0.00	0.00	0.00	0.00	Sheen	0.00
PL-2	NM	NM	0.05	0.00	Sheen	0.00	Sheen	Sheen	Sheen	Sheen	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00
PL-5/PL-5R	NA	NA	NA	NA	NA	NA	0.00	0.00	NM	1.00	0.00	NM	Sheen	Sheen	Sheen	0.00	0.00	0.20
TF-1	NM	NM	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00
TF-2	NM	NM	0.01	0.60	0.60	0.58	NM	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
TM-7	NM	NM	0.01	Sheen	Sheen	0.05	0.00	0.00	0.00	NM	0.00	NM	0.00	0.00	0.00	0.00	Sheen	0.00
TR-2R	NM	NM	0.01	0.07	0.08	0.07	0.00	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	Sheen	0.00
TR-6	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00
TR-6D	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00

Third Quarter		2015			2016			2017		2018		2019			
	July	August	September	July	August	September	July	August	September	July	August	September	July	August	September
PL-1RR	0.01	0.01	0.17	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	0.00	0.00	0.00	0.00	N/A	0.00
PL-2	0.02	0.02	0.04	0.00	0.00	0.00	Sheen	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
PL-5/PL-5R	NA	NA	NA	NA	NA	NA	NM	Sheen	Sheen	1.50	1.35	1.75	indeterminable	N/A	NM
TF-1	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
TF-2	NM	NM	NM	0.50	0.38	0.28	0.01	Sheen	0.00	0.00	Sheen	0.00	0.00	N/A	0.00
TM-7	0.05	0.07	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	Sheen	Sheen	0.00	N/A	0.00
TR-2R	0.01	0.01	0.02	0.03	Sheen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
TR-6	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
TR-6D	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00

Fourth Quarter	2015			2016			2017			2018			2019		
	October	November	December	October	November	December									
PL-1RR	0.11	0.10	0.01	Sheen	NM	Sheen	Sheen	0.02	0.02	0.00	0.00	0.00	0.00	N/A	0.00
PL-2	0.02	0.10	0.01	0.03	NM	0.00	Sheen	Sheen	Sheen	0.00	0.00	0.00	0.00	N/A	0.00
PL-5/PL-5R	NA	NA	NA	NA	NA	NA	NM	1.10	0.57	0.01	0.00	0.00	indeterminable	N/A	NM
TF-1	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
TF-2	NM	0.50	0.10	0.20	NM	0.02	NM	0.03	0.03	0.01	0.00	0.00	0.00	N/A	0.00
TM-7	0.01	0.00	0.00	0.00	NM	0.00	0.00	0.00	Sheen	0.00	0.00	0.00	0.00	N/A	0.00
TR-2R	0.03	0.00	0.01	0.00	NM	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	N/A	0.00
TR-6	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
TR-6D	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00

Table 3.2 Hess Corporation Former Port Reading Terminal 750 Cliff Road Annual Groundwater Gauging Table Port Reading, New Jersey

		Depth to	Don'th to	LNAPL	DTB	DTD from	тос	Water	LNAPL	
WELL I.D.	Date	LNAPL (ft)	Depth to Water (ft)	Thickness (ft)	Original (ft)	DTB from TOC (ft)	Elevation (ft)	Elevation (ft)	Corrected Water Level (ρ	PID
AB-1	5/21/2020		5.38		13.00	12.50	11.68	6.30	= 0.82)	0.0
AB-3	5/21/2020		3.63		10.00	13.40	12.33	8.70		6.5
AB-4R	5/21/2020		3.93		15.50	15.80	12.05	8.12		0.0
AB-4D	5/21/2020		10.42		33.00	33.80	11.81	1.39		0.0
AB-5	5/21/2020		4.90		13.00	13.30	11.18	6.28		0.0
AB-6	5/21/2020		3.09		10.50	10.10	6.95	3.86		1.1
AD-1	5/21/2020		5.10		13.00	10.58	16.12	11.02		0.0
AD-2	5/21/2020		6.79		18.00	16.67	16.64	9.85		227.3
AD-2DD	5/21/2020		9.37		45.00	44.36	16.58	7.21		0.1
AD-3	5/21/2020		9.81		11.00	13.80	19.96	10.15		0.0
AD-3D	5/21/2020		9.84		26.00	29.02	19.71	9.87		0.0
AD-4	5/21/2020		6.16		15.00	14.26	15.45	9.29		0.0
AD-5	5/21/2020		6.12		15.00	14.62	15.59	9.47		0.2
AD-5D AD-6	5/21/2020		7.88		30.00 15.00	28.66 14.48	15.48 17.13	7.60		49.0 0.0
AD-8	5/21/2020 5/21/2020		7.36 7.00		15.00	15.10	17.13	9.77 8.85		0.0
AD-9D	5/21/2020		7.86		28.00	26.59	15.65	7.64		4.3
AD-9DD	5/21/2020		9.56		60.00	54.60	15.43	5.87		0.0
AD-9DD AD-10	5/21/2020		8.59		20.00	19.30	16.05	7.46		0.4
AD-10DD	5/21/2020		8.76		65.00	64.12	16.14	7.38		0.0
FA-1	5/21/2020		2.99		13.00	14.03	10.02	7.03		0.0
FA-2	5/21/2020		4.16		14.00	13.50	10.76	6.60		0.0
FA-3	5/21/2020		8.64		15.00	14.58	11.28	2.64		4.0
FA-4	5/21/2020		8.93		15.00	14.50	11.39	2.46		0.0
FA-5	5/21/2020		6.21		15.00	NM	10.53	4.32		3.8
FA-6	5/21/2020		6.95		15.00	12.30	12.46	5.51		0.0
FA-7	5/21/2020		9.24		15.00	18.50	10.94	1.70		0.0
LPG-1	5/21/2020		4.35	-	9.00	8.00	11.60	7.25		0.0
LPG-2	5/21/2020		3.12	-	10.00	9.55	7.05	3.93		0.0
PER-1	5/21/2020		9.90		17.70	17.65	17.18	7.28		0.0
PER-2	5/21/2020		5.57		12.00	12.00	10.76	5.19		0.7
PER-2D	5/21/2020		6.26		33.00	32.00	11.30	5.04		0.1
PER-2DD	5/21/2020		6.50		60.00	63.00	10.53	4.03		11.2
PER-3	5/21/2020		4.34		12.16	12.55	7.32	2.98		0.0
PER-3D	5/21/2020		5.76		33.00	32.40	7.30	1.54		0.0
PER-4	5/21/2020		7.08		18.00	16.60	10.30	3.22		0.0
PER-5	5/21/2020		10.01 9.55		15.00	14.20 21.74	18.49	8.48		0.0
PER-6R PER-7	5/21/2020 5/21/2020		6.63		20.00 18.00	15.73	21.54	11.99 2.31		0.0
PER-7	5/21/2020		5.79		17.00	13.73	8.94 7.74	1.95		0.0
PER-9	5/21/2020		5.32		18.00	18.00	8.02	2.70		0.00
PER-9D	5/21/2020		5.84		32.00	37.00	7.85	2.70		0.00
PER-9DD	5/21/2020		5.44		67.50	68.40	7.91	2.47		0.00
PER-10	5/21/2020		7.28		15.70	19.50	12.19	4.91		2.9
PER-10D	5/21/2020		10.39		32.00	32.30	11.94	1.55		0.0
PL-1RR	5/21/2020	Sheen	1.23		15.00	NM	7.36	6.13		6.5
PL-2	5/21/2020		1.95		15.00	NM	9.58	7.63		2.1
PL-3R	5/21/2020		3.77		20.00	19.00	10.16	6.39		22.3
PL-4RR	5/21/2020		4.83	-	10.00	11.50	11.56	6.73		0.0
PL-5R	5/21/2020	Sheen	1.20		10.00	NM	6.54	5.34		30.20
PL-6RR	5/21/2020		3.34		15.00	15.00	6.88	3.54		0.0
PL-7	5/21/2020		Dry		18.00	5.00	10.75			0.0
PL-8R	5/21/2020		4.22		20.00	22.00	9.91	5.69		0.6
PL-9R	5/21/2020		2.23		20.00	20.20	9.11	6.88		0.0
SM-1	5/21/2020		4.55		15.00	14.40	8.59	4.04		0.0
SP-1	5/21/2020		4.95		15.00	13.25	8.95	4.00		0.0
SP-2	5/21/2020		5.37		15.00	11.72	10.18	4.81		0.0
SP-3	5/21/2020		3.30		15.00	12.85	9.33	6.03		0.0
TF-1	5/21/2020 5/21/2020		3.00 1.55		12.00 12.00	NM NM	8.60 7.69	5.60 6.14		3.7 44.0
TF-2			7 66		. 4.1111	1. 15.115.71	/ (- (1)	. 6.1/		44.0

Table 3.2 Hess Corporation Former Port Reading Terminal 750 Cliff Road

Annual Groundwater Gauging Table Port Reading, New Jersey

WELL I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB Original (ft)	DTB from TOC (ft)	TOC Elevation (ft)	Water Elevation (ft)	LNAPL Corrected Water Level (ρ = 0.82)	PID
TL-1	5/21/2020		6.41		12.80	12.72	8.81	2.40		0.1
TL-2	5/21/2020		6.20	-	14.50	14.15	8.48	2.28		290.3
TL-3	5/21/2020		6.59		10.00	9.93	8.68	2.09		0.0
TM-1	5/21/2020		10.00		21.10	20.20	20.06	10.06		0.0
TM-2	5/21/2020		10.85		21.50	21.20	20.14	9.29		0.0
TM-3	5/21/2020		10.80		21.00	20.80	20.19	9.39		0.0
TM-4	5/21/2020		8.35		15.00	15.00	19.01	10.66		0.0
TM-5	5/21/2020		8.68		22.20	22.08	16.13	7.45		0.0
TM-6R	5/21/2020		5.41		20.00	NM	14.26	8.85		85.5
TM-7	5/21/2020	Chaon	6.63		21.60 16.00	NM 44.00	14.81	8.18		81.0 0.0
TR-1R TR-2R	5/21/2020 5/21/2020	Sheen Sheen	6.34 0.25		20.00	14.90 19.80	13.68 12.47	7.34 12.22		40.0
TR-3RR	5/21/2020		2.77		15.00	14.50	9.63	6.86		0.0
TR-3D	5/21/2020		2.77		25.00	24.80	9.33	6.96		233.0
TR-3DD	5/21/2020		3.23		60.00	60.20	9.59	6.36		0.0
TR-4R	5/21/2020		1.52		15.00	13.68	12.18	10.66		11.50
TR-4D	5/21/2020		2.35		25.00	24.10	12.48	10.13		0.00
TR-4DD	5/21/2020		5.63		56.00	56.54	12.58	6.95		0.00
TR-5	5/21/2020		3.77		12.00	10.50	11.99	8.22		135.0
TR-5D	5/21/2020		5.16		25.00	22.80	11.57	6.41		68.0
TR-5DD	5/21/2020		5.02		60.00	60.70	11.28	6.26		0.0
TR-6	5/21/2020		3.81		12.50	12.90	10.78	6.97		0.0
TR-6D	5/21/2020		4.26		28.30	29.20	10.81	6.55		0.0
DB-SW	5/21/2020						1.08	1.08		
L1-SW	5/21/2020						-0.2	-0.20		
LN-SW	5/21/2020						-0.31	-0.31		
TR-SUMP-1	5/21/2020		5.34			7.35	12.62			0.0
TR-SUMP-2	5/21/2020		5.05			7.15	12.35	7.30		13.2
MW-1	5/21/2020		10.89		13.00	16.20	24.48	13.59		0.0
MW-2	5/21/2020		4.21		13.00	14.74	19.01	14.80		0.0
MW-3	5/21/2020		2.69	-	13.00	12.81	18.91	16.22		0.0
MW-4	5/21/2020		5.91		15.00	18.00	24.07	18.16		0.0
LN-1	5/21/2020		5.13		16.00	14.00	10.37	5.24		0.0
LN-2	5/21/2020		5.98		13.00	11.80	9.65	3.67		0.0
LN-3	5/21/2020		5.45		11.30	13.01	8.92	3.47		0.0
LN-4	5/21/2020		7.62		14.00	15.00	10.69	3.07		0.0
LN-5	5/21/2020		6.94		15.00	16.00	10.57	3.63		0.0
LN-6	5/21/2020		8.63		15.00	17.20	12.15	3.52		0.0
LN-7	5/21/2020		9.07		15.00	17.50	13.3	4.23		0.0
LS-1R	5/21/2020		3.55		16.00	16.15	12.25	8.70		0.0
LS-2	5/21/2020		2.33		12.01	12.10	9.75	7.42		2.5
LS-3	5/21/2020		1.25		12.00	13.00	8.4	7.15		0.0
LS-4	5/21/2020		1.96		12.00	13.70	9.28	7.32		0.0
L1-1 L1-2	5/21/2020		4.78 6.34		15.00	13.52 14.40	9.91	5.13 2.71		0.0
L1-2	5/21/2020 5/21/2020		6.69		14.00 9.40	10.95	9.05 9.33	2.71		0.0
L1-3	5/21/2020		8.07		9.40	11.00	10.85	2.78		0.0
BG-2	5/21/2020		2.60		9.00	8.97	6.96	4.36		0.0
BG-3	5/21/2020		4.48		10.00	10.74	10.31	5.83		0.0
SC-1	5/21/2020		1.80		15.00	15.00	4.74	2.94		0.4
SC-1D	5/21/2020		0.00		30.00	33.00	4.95	4.95		0.0
SC-1DD	5/21/2020		0.00		60.00	59.00	5.07	5.07		0.0
SC-2	5/21/2020		1.90		15.00	15.44	4.89	2.99		1.5
SC-2D	5/21/2020		2.52		35.00	33.90	4.68	2.16		0.4
SC-2DD	5/21/2020		2.45		60.00	60.80	4.69	2.24		0.8
SC-2DDD	5/21/2020		2.20		78.00	77.00	4.54	2.34		0.0
SC-3	5/21/2020		4.91		14.00	16.70	7.03	2.12		0.2
SC-3D	5/21/2020		5.11		35.00	37.80	6.42	1.31		0.0
SC-3DD	5/21/2020		5.39		65.00	67.60	6.74	1.35		11.0
SC-3DDD	5/21/2020		5.55		81.00	83.70	6.84	1.29		2.8
SC-4	5/21/2020		3.34		15.00	15.30	7.11	3.77		0.3
SC-4D	5/21/2020		5.81		35.00	34.30	7.08	1.27		0.0
SC-4DD	5/21/2020		5.62		60.00	60.00	6.92	1.30		0.4
	- Not Applicable	•		oth to Bottom				ueous Phase	Liquids	
-	140t Applicable			our to bottom			ight Hom / tq	accas i nacc	Liquido	

Hess Corportation Port Reading Terminal 750 Cliff Road

Port Reading, New Jersey
Monthly Groundwater Gauging Table - 2nd Quarter 2020

Well I.D.	Date	Time	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft)	Water Elevation (LNAPL Corrected Where Applicable, ft)	PID	Notes
PL-1RR	4/17/2020 5/21/2020	9:31 NM		0.20 1.23		14.88 NM	7.36 7.36	7.16 6.13	1.2 6.5	Sheen, Sock absorbed, replaced sock Sheen, Sock absorbed, replaced sock
	6/18/2020 4/17/2020	10:25 9:50		1.00		14.50 16.88	7.36 9.58	6.36 7.88	1.0	Sheen, Sock absorbed, replaced sock Sock clean, iron like color 1/4 sock
PL-2	5/21/2020 6/18/2020	NM 10:40		1.95 1.94		NM 16.79	9.58 9.58	7.63 7.64	2.1 0.0	Globules, replaced sock Sock clean, iron like color 1/4 sock
PL-3R	4/17/2020 5/21/2020 6/18/2020	10:05 NM 10:18		3.79 3.77 3.66		19.03 19.00 19.30	10.16 10.16 10.16	6.37 6.39 6.50	10.1 22.3 8.1	
PL-4RR	4/17/2020 5/21/2020	10:45 NM		4.45 4.83		13.57 11.50	11.56 11.56	7.11 6.73	0.0	
	6/18/2020 4/17/2020	10:58 10:24		4.73 0.35		11.80 9.80	11.56 6.54	6.83 6.19	0.0 29.6	Sheen, sock fully absorbed, replaced sock, no globules/LNAPL
PL-5R	5/21/2020 6/18/2020	NM 10:53	1.50	1.20 1.70	0.20	NM 9.80	6.54 6.54	5.34 5.00	30.2 28.6	Sheen, sock fully absorbed, replaced sock, no globules/LNAPL Measureable LNAPL, replaced sock
PL-6RR	4/17/2020 5/21/2020	10:00 NM		1.10		15.05 15.00	6.88 6.88	5.78 5.68	0.0	
PL-7	6/18/2020 4/17/2020 5/21/2020	11:00 10:50 NM		3.47 4.81 Dry		15.00 5.01 5.01	6.88 10.75 10.75	3.41 5.94 Dry	0.0 0.0 0.0	Dry, mud at bottom Dry, mud at bottom
	6/18/2020 4/17/2020	11:20 10:55		4.82 4.08		5.01	10.75 9.91	5.93 5.83	0.0	Dry, mud at bottom
PL-8R	5/21/2020 6/18/2020	NM 11:15		4.22 4.65		22.00 22.20	9.91 9.91	5.69 5.26	0.6 0.0	
PL-9R	4/17/2020 5/21/2020 6/18/2020	9:27 NM 10:22		2.06 2.23 2.20		20.40 20.20 NM	9.11 9.11 9.11	7.05 6.88 6.91	0.3 0.0 0.0	
TF-1	4/17/2020 5/21/2020	11:05 NM		2.56 3.00		12.10 NM	8.60 8.60	6.04 5.60	21.6 3.7	Sock clean, light orange Globules, replaced sock
<u> </u>	6/18/2020 4/17/2020	NM 14:52		NM 1.62		NM 11.80	8.60 7.50	NM 5.88	NM 37.2	Could not access Replaced sock, light sheen
TF-2	5/21/2020 6/18/2020	NM NM		1.55 NM		NM NM	7.50 7.50	5.95 NM	44.0 NM	Could not access
TF-3	4/17/2020 5/21/2020	10:58 NM		2.31 3.00		11.80 11.80	8.58 8.58	6.27 5.58	0.0	
TM-6R	6/18/2020 4/17/2020 5/21/2020	9:55 NM		NM 4.76 5.41		11.80 20.40 NM	8.58 14.26 14.26	NM 9.50 8.85	NM 88.2 85.5	Could not access Sock clean, light orange Replaced sock, light sheen
TWI-OIX	6/18/2020 4/17/2020	10:10 9:13		5.45		20.20	14.26 14.81	8.81 7.99	18.0 58.9	Sock black bottom 8th, Slight sheen, Replace sock
TM-7	5/21/2020 6/18/2020	NM 10:04		6.63 7.06		NM 22.00	14.81 14.81	8.18 7.75	81.0 22.8	Globules, replaced sock Sock black bottom 8th, Slight sheen, Replace sock
TR-1R	4/17/2020 5/21/2020 6/18/2020	12:00 NM 13:35		6.15 6.34 6.63		15.00 14.90 15.10	13.68 13.68 13.68	7.53 7.34 7.05	0.0 0.0 0.2	Sheen
TR-2R	4/17/2020 5/21/2020	13:10 NM		0.20		20.00	12.47 12.47	12.27 12.22	110.0 40.0	Sheen Sheen, replaced sock
	6/18/2020 4/17/2020	13:42 8:38		0.20 2.30		20.30 15.10	12.47 9.63	12.27 7.33	150.0 0.2	Sheen and globules on surface, Placed Sock
TR-3RR	5/21/2020 6/18/2020	NM 9:25		2.77 3.12		14.50 15.08	9.63 9.63	6.86 6.51	0.0	
TR-3D	4/17/2020 5/21/2020 6/18/2020	8:20 NM 9:19		2.14 2.37 2.70		27.74 24.80 24.40	9.33 9.33 9.33	7.19 6.96 6.63	117.2 233.0 136.0	
TR-3DD	4/17/2020 5/21/2020	8:28 NM		3.21 3.23		60.10 60.20	9.59 9.59	6.38 6.36	0.5 0.0	
	6/18/2020 4/17/2020	9:22 NM		3.48 NM		60.20 NM	9.59 12.18	6.11 NM	0.0	Covered by Truck
TR-4D	5/21/2020 6/18/2020 4/17/2020	NM 13:48 NM		2.35 2.75 NM		24.10 24.80 NM	12.18 12.18 12.48	9.83 9.43 NM	0.0 8.5 153.0	Covered by Truck
TR-4R	5/21/2020 6/18/2020	NM 13:58		1.52 1.81		13.68 13.90	12.48 12.48	10.96 10.67	11.5 178.8	Coronal by made
TR-4DD	4/17/2020 5/21/2020	NM NM		NM 5.63		NM 56.54	12.58 12.58	NM 6.95	0.2	Covered by Truck
TR-5	6/18/2020 4/17/2020 5/21/2020	14:00 8:30 NM		5.86 3.66 3.77		57.60 10.50 10.50	12.58 11.99 11.99	6.72 8.33 8.22	0.4 110.0 135.0	
	6/18/2020 4/17/2020	9:42 8:35		3.93 4.96		10.50 22.64	11.99 11.57	8.06 6.61	115.0 314.8	
TR-5D	5/21/2020 6/18/2020	NM 9:40		5.16 5.38		22.80 22.80	11.57 11.57	6.41 6.19	68.0 438.0	
TR-5DD	4/17/2020 5/21/2020 6/18/2020	8:42 NM 9:37		6.13 5.02 5.17		60.13 60.70 60.20	11.28 11.28 11.28	5.15 6.26 6.11	0.1 0.0 12.2	
TR-6	4/17/2020 5/21/2020	8:50 NM		3.58 3.81		12.70 12.90	10.78 10.78	7.20 6.97	0.0	
	6/18/2020 4/17/2020	9:50 8:53		4.15 4.10		12.80 29.00	10.78 10.81	6.63 6.71	0.0 0.1	
TR-6D	5/21/2020 6/18/2020 4/17/2020	NM 9:48		4.26 4.49		29.20 29.20	10.80 10.81 12.62	6.54 6.32 7.31	0.0 0.0 0.0	
TR-Sump-1	5/21/2020 6/18/2020	11:40 NM 13:28		5.31 5.34 5.36		7.40 7.35 7.50	12.62 12.62 12.62	7.28 7.26	0.0	
TR-Sump-2	4/17/2020 5/21/2020	11:37 NM		4.99 5.05		7.20 7.15	12.35 12.35	7.36 7.30	1.1 13.2	
Interceptor	6/18/2020 4/17/2020	13:25 11:33	0.35	5.06 NM		7.20 5.00	12.35 NA	7.29 NA	0.0 NA	
Trench	05/2020 6/18/2020 4/17/2020	NM 13:24 9:08	1.60 NM	NM NM 7.40		5.00 5.00 NA	NA NA -0.11	NA NA 7.51	NA NA NA	
DB-SW	05/2020 6/18/2020	NM 9:00		NM 6.00		NA NA	-0.11 -0.11	NM 6.11	NA NA	
LN-SW	4/17/2020 05/2020 6/18/2020	12:30 NM 13:07		0.40 NM 2.50		NA NA NA	-0.31 -0.31 -0.31	0.71 NM 2.81	NA NA NA	
L1-SW	4/17/2020 05/2020	13:07 12:21 NM		0.30 NM		NA NA NA	-0.31 -0.20 -0.20	0.50 NM	NA NA NA	
-	6/18/2020 04/2020	12:55 NM		0.50 NM		NA NM	-0.20 10.02	0.70 NM	NA NM	
FA-1	5/21/2020 6/18/2020	NM 12:19:00 PM		2.99 3.55		13.00 12.80	10.02 10.02	7.03 6.47	0.0 0.0	
FA-2	04/2020 5/21/2020 6/18/2020	NM NM 12:10:00 PM		NM 4.16 6.08		NM 13.50 13.70	10.76 10.76 10.76	NM 6.60 4.68	0.0 0.0	
FA-3	04/2020 5/21/2020	NM NM		NM 8.64		NM 14.58	11.28 11.28	NM 2.64	NM 4.0	
EA 4	6/18/2020 04/2020 5/21/2020	12:05:00 PM NM		8.96 NM		14.80 NM	11.28 11.39	2.32 NM 2.46	1.1 NM	
FA-4	5/21/2020 6/18/2020 04/2020	NM 11:57:00 AM NM		8.93 9.19 NM		14.50 14.70 NM	11.39 11.39 10.53	2.46 2.20 NM	0.0 0.0 NM	
FA-5	5/21/2020 6/18/2020	NM 11:40:00 AM		6.21 7.43		NM NM	10.53 10.53	4.32 3.10	3.8 8.2	Globular Product in well. Not measureable. Sock Installed Sock Saturated, globules on surface
FA-6	04/2020 5/21/2020	NM NM		NM 6.95		NM 12.30	12.46 12.46	NM 5.51	NM 0.0	Very Silty, DTB not same as well record
FA-7	6/18/2020 04/2020 5/21/2020	12:30:00 PM NM NM		9.47 NM 9.24		18.40 NM 18.40	12.46 10.94 10.94	2.99 NM 1.70	0.0 NM 0.0	
	6/18/2020 04/2020	12:35:00 PM NM	 NA	8.56 NM	 NA	18.80 NA	10.94 -6.11	2.38 NM	0.0 NA	
SC-1	05/2020 6/18/2020	NM 2:25:00 PM	NA NA	NM NM	NA NA	NA NA	-6.11 -6.11	NM NM	NA NA	Could not read
SC-1A	04/2020 05/2020 6/18/2020	NM NM 2:30:00 PM	NA NA NA	NM NM 2.20	NA NA NA	NA NA NA	-1.10 -1.10 -1.10	NM NM 3.30	NA NA NA	
SC-2	04/2020 05/2020	2:30:00 PM NM NM	NA NA NA	NM NM	NA NA NA	NA NA NA	-1.10 -1.64 -1.64	NM NM	NA NA NA	
	6/18/2020	2:30:00 PM	NA NA	0.50	NA NA	NA NA	-1.64	2.14	NA NA	

ATTACHMENT 4

SOIL FIGURES & TABLES

Figure 4.1 -	 Sitewide 	Surface	Soil	Map -	VOC	Exceedances
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Figure 4.2 – Sitewide Surface Soil Map – SVOC/PCB Exceedances

Figure 4.3 – Sitewide Surface Soil Map – Metals Exceedances

Figure 4.4 – Sitewide Surface Soil Map – EPH Exceedances

Figure 4.5 – Sitewide Sub-Surface Soil Map – VOC Exceedances

Figure 4.6 – Sitewide Sub-Surface Soil Map – EPH Exceedances

Figure 4.7 – Sitewide Sub-Surface Soil Map – SVOC Exceedances

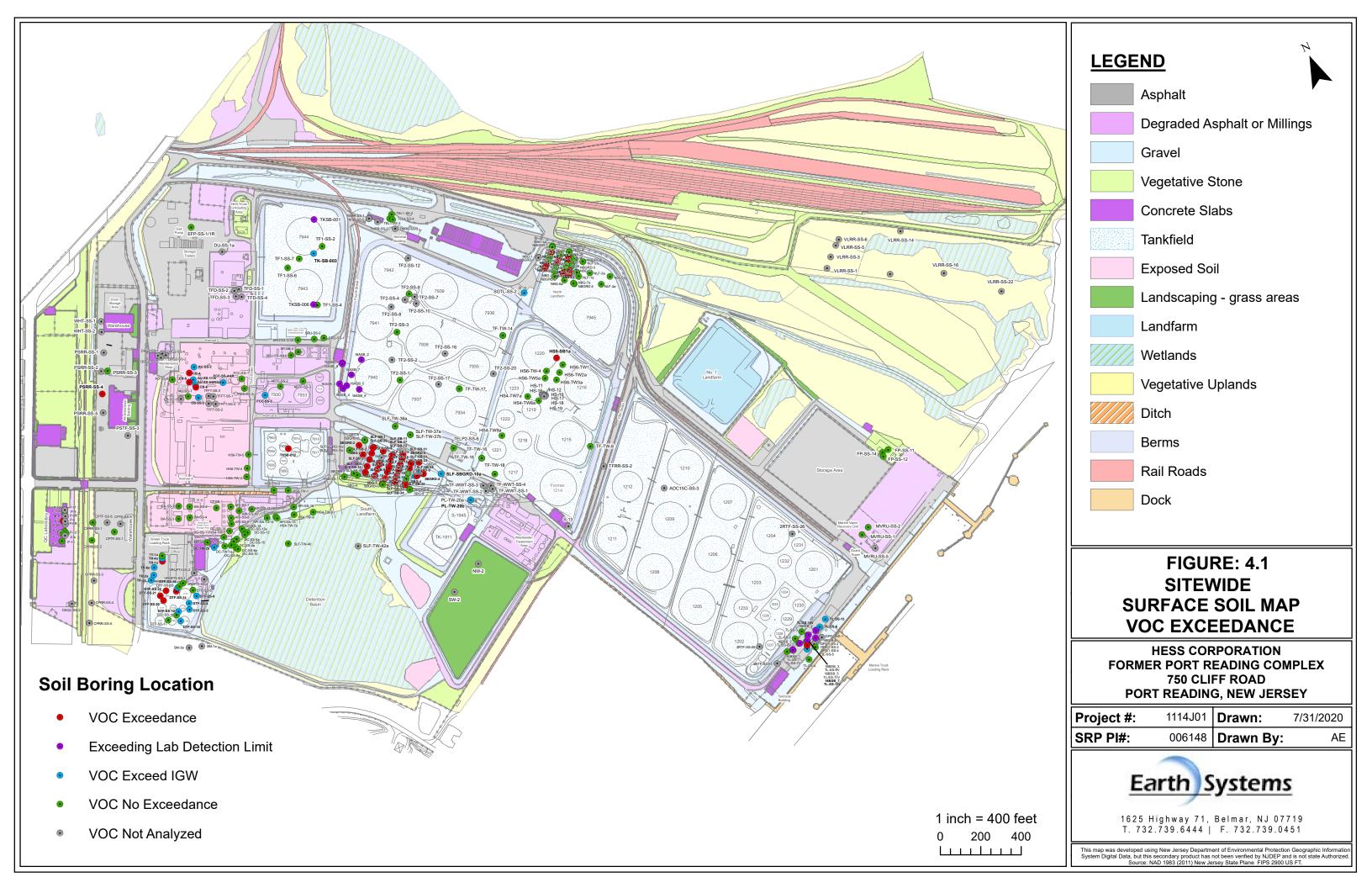
Figure 4.8 – Sitewide Sub-Surface Soil Map – Metals Exceedances

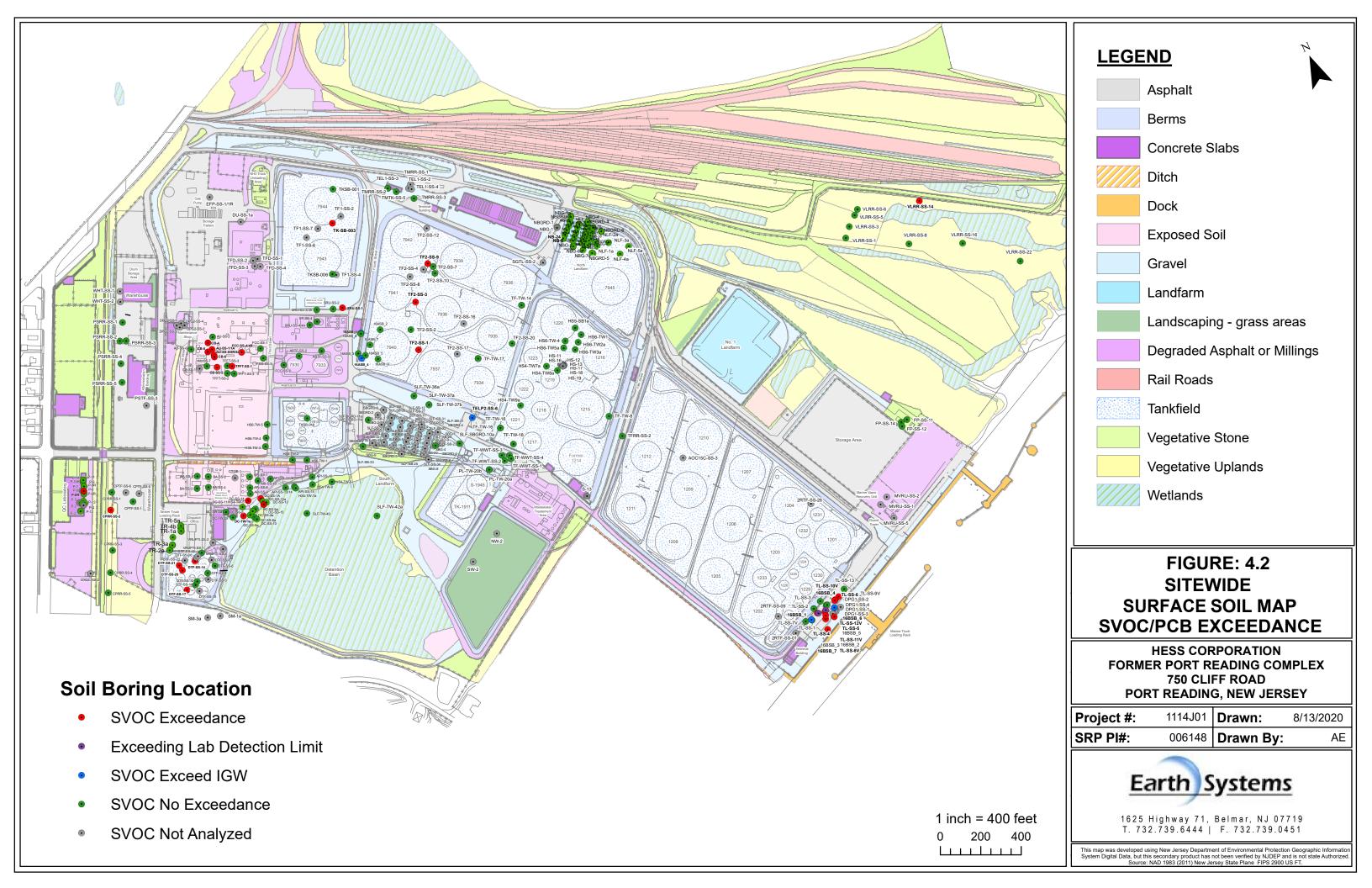
Figure 4.9 through Figure 4.64 – 2015 Site Investigation Soil Analytical Results

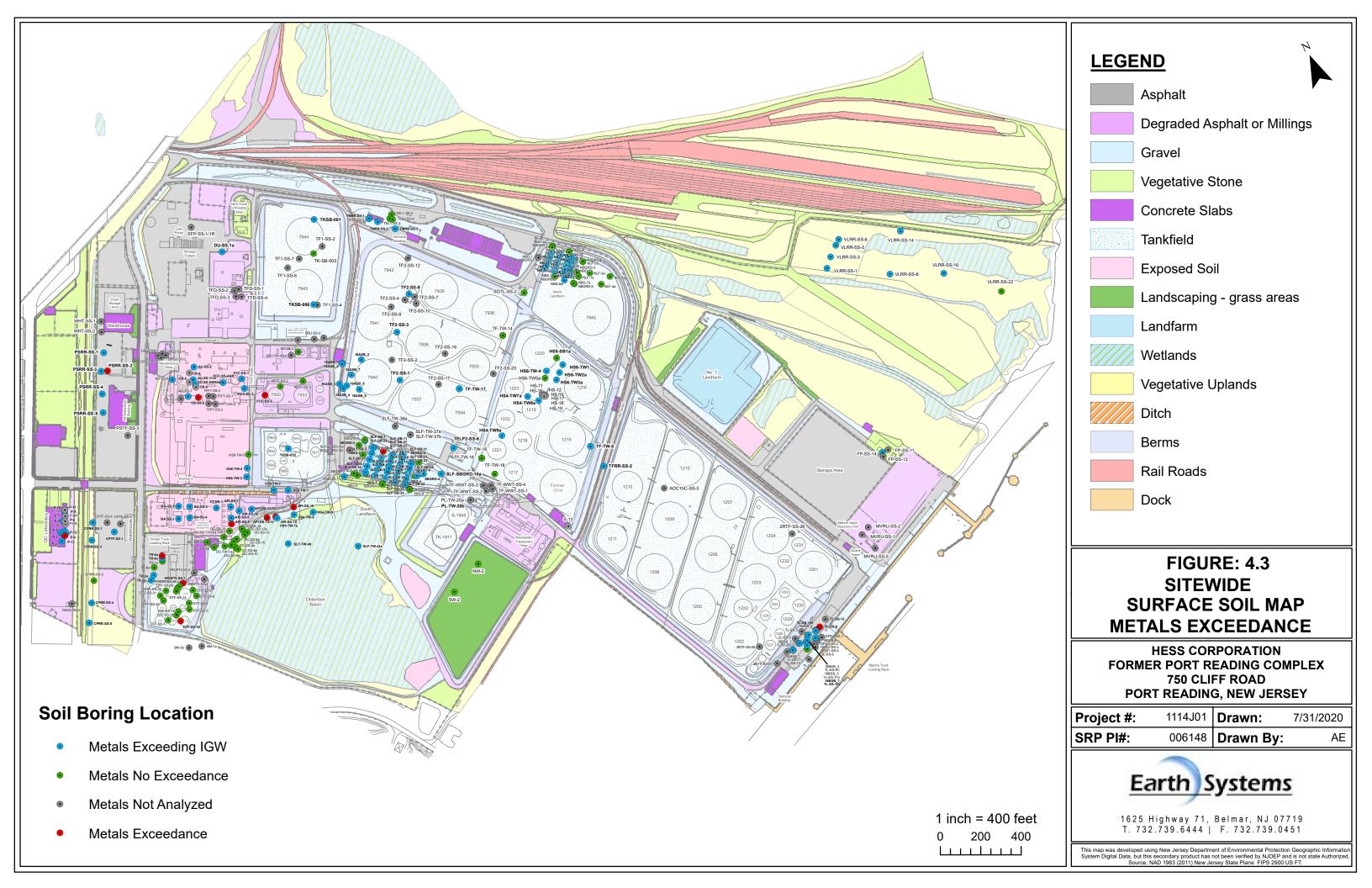
Figure 4.65 – January 2018 Soil Analytical Results – AOC 10

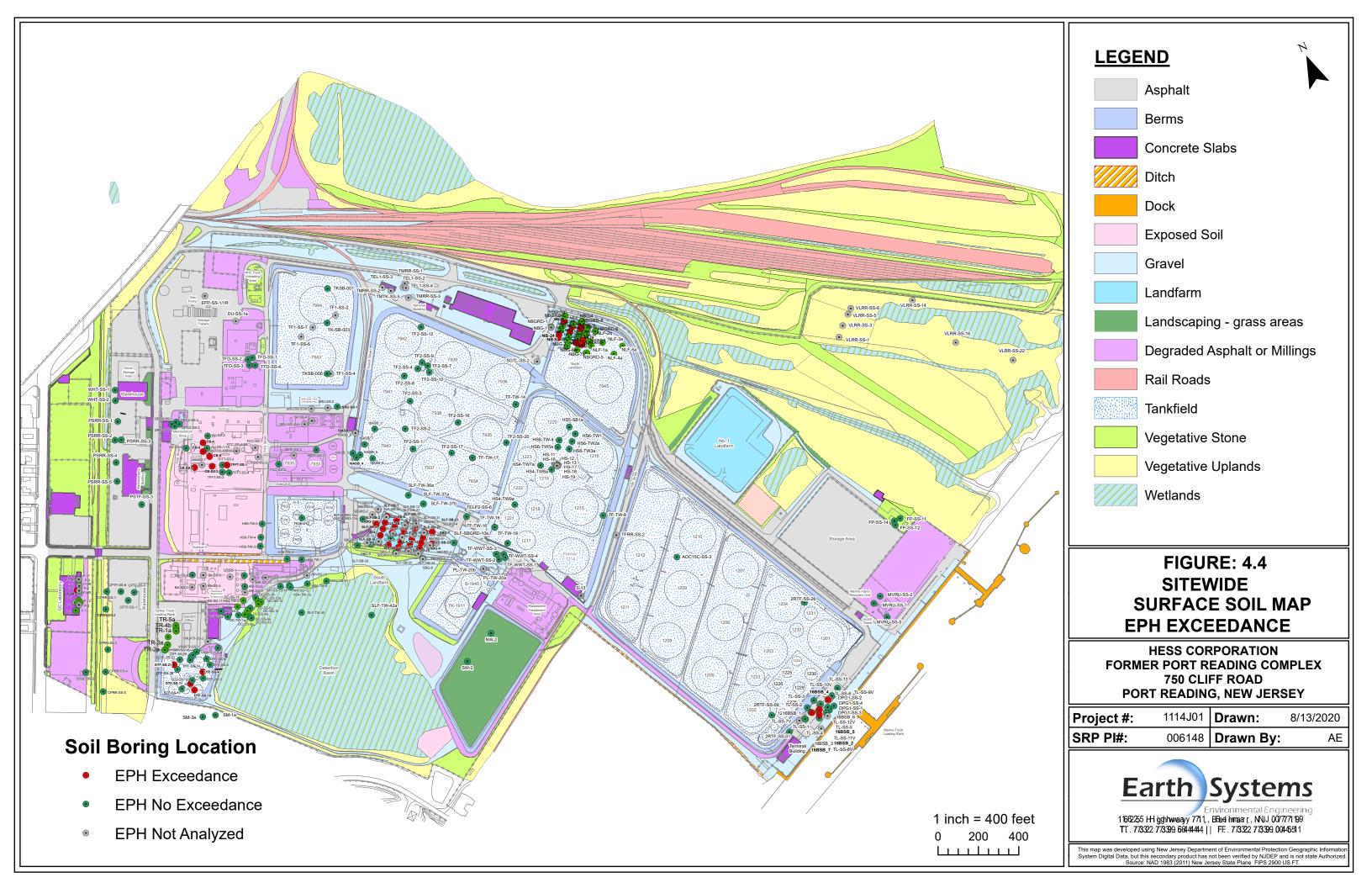
Figure 4.66 – 2019 Soil Analytical Results – AOC 10

Table 4.1 – 2015 Site Investigation Soil Analytical Results



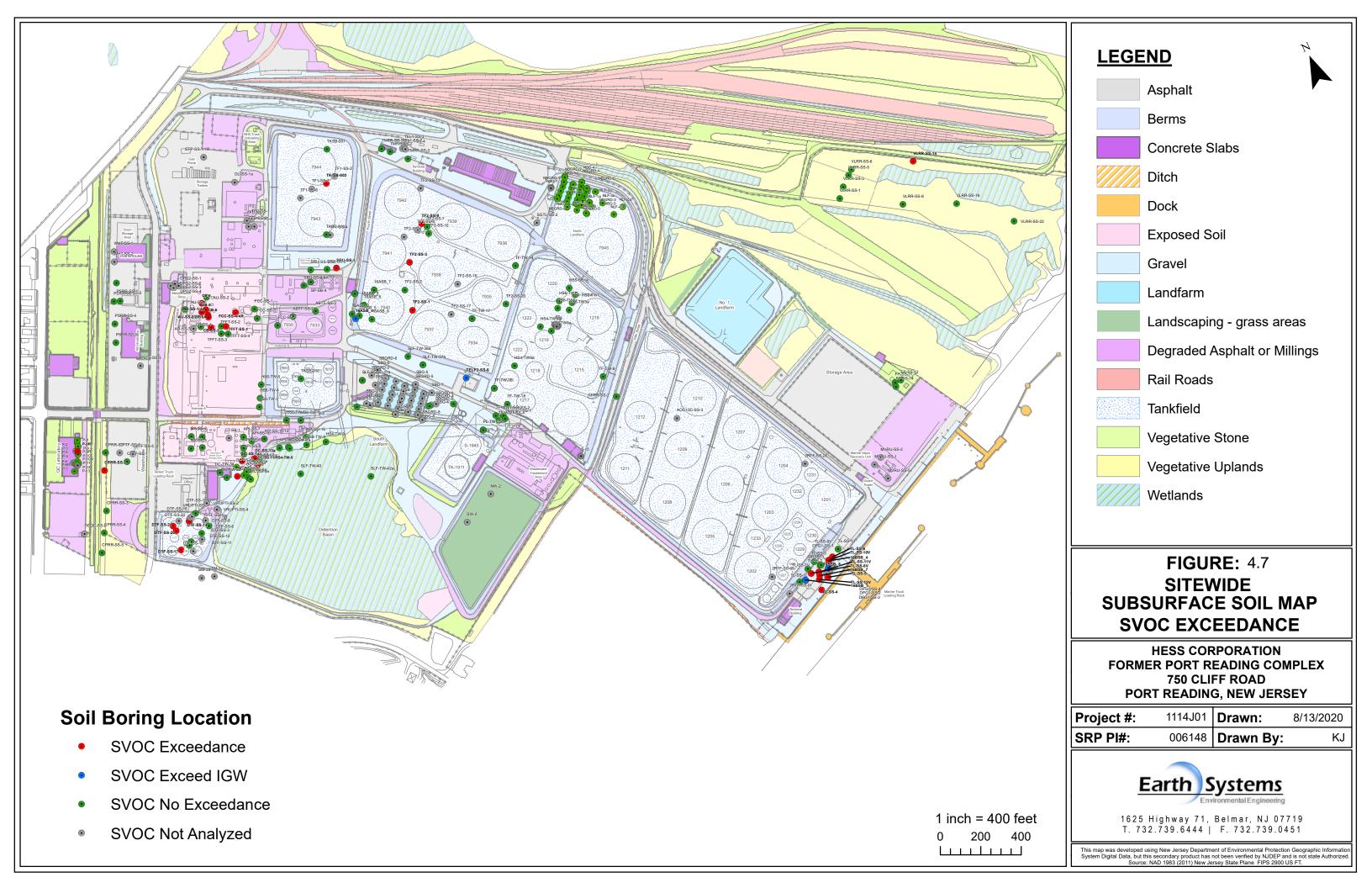




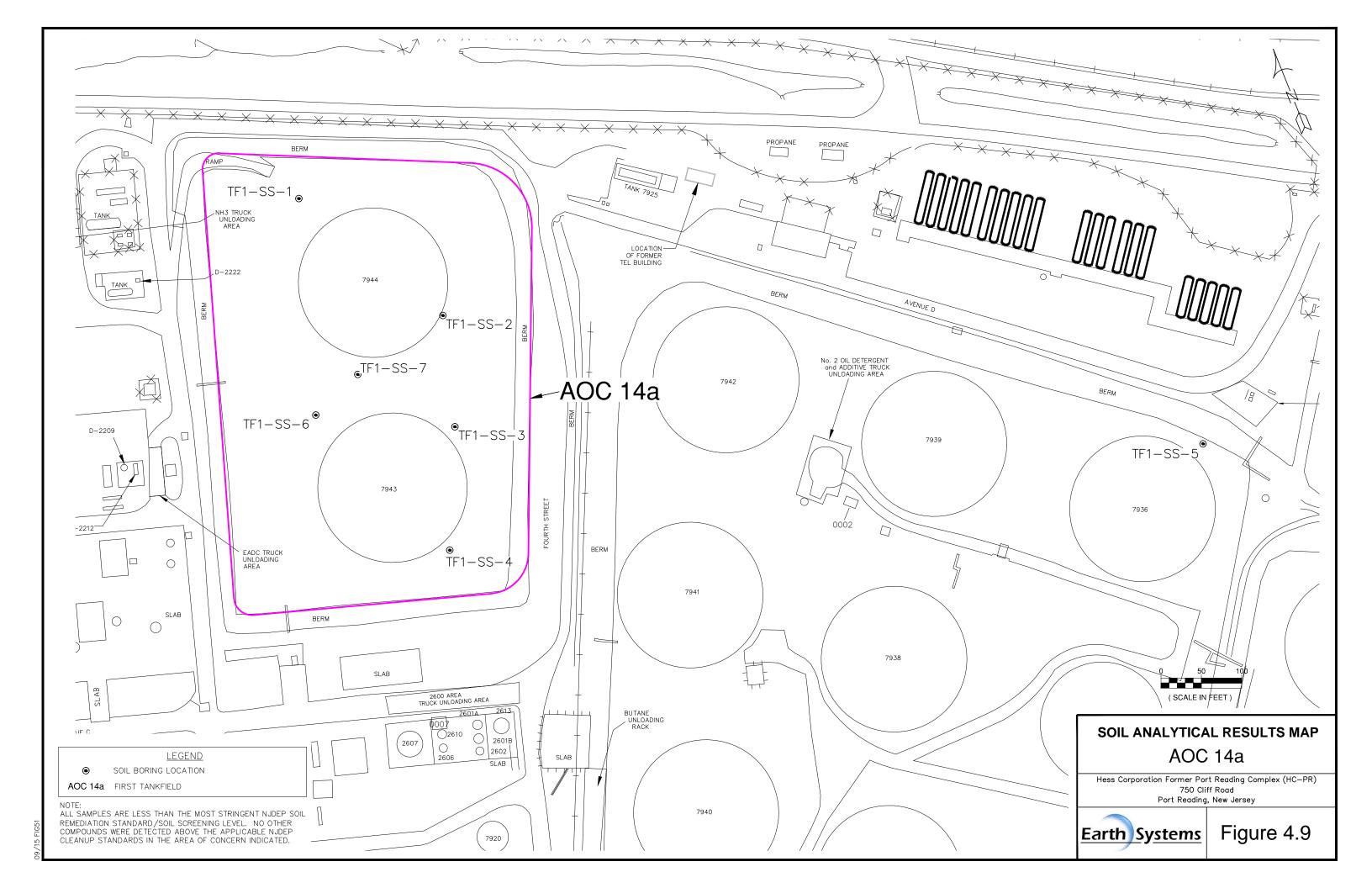


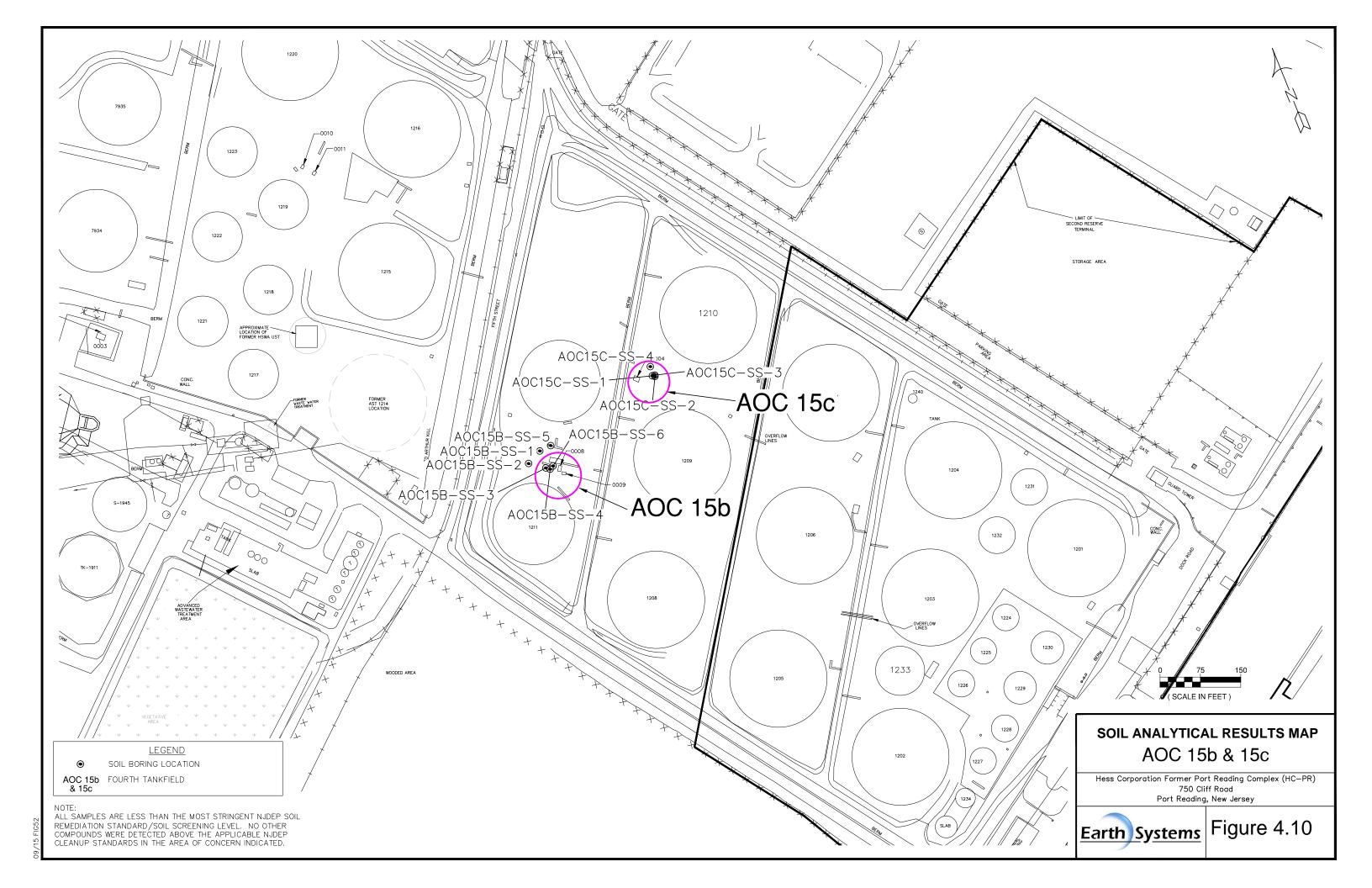


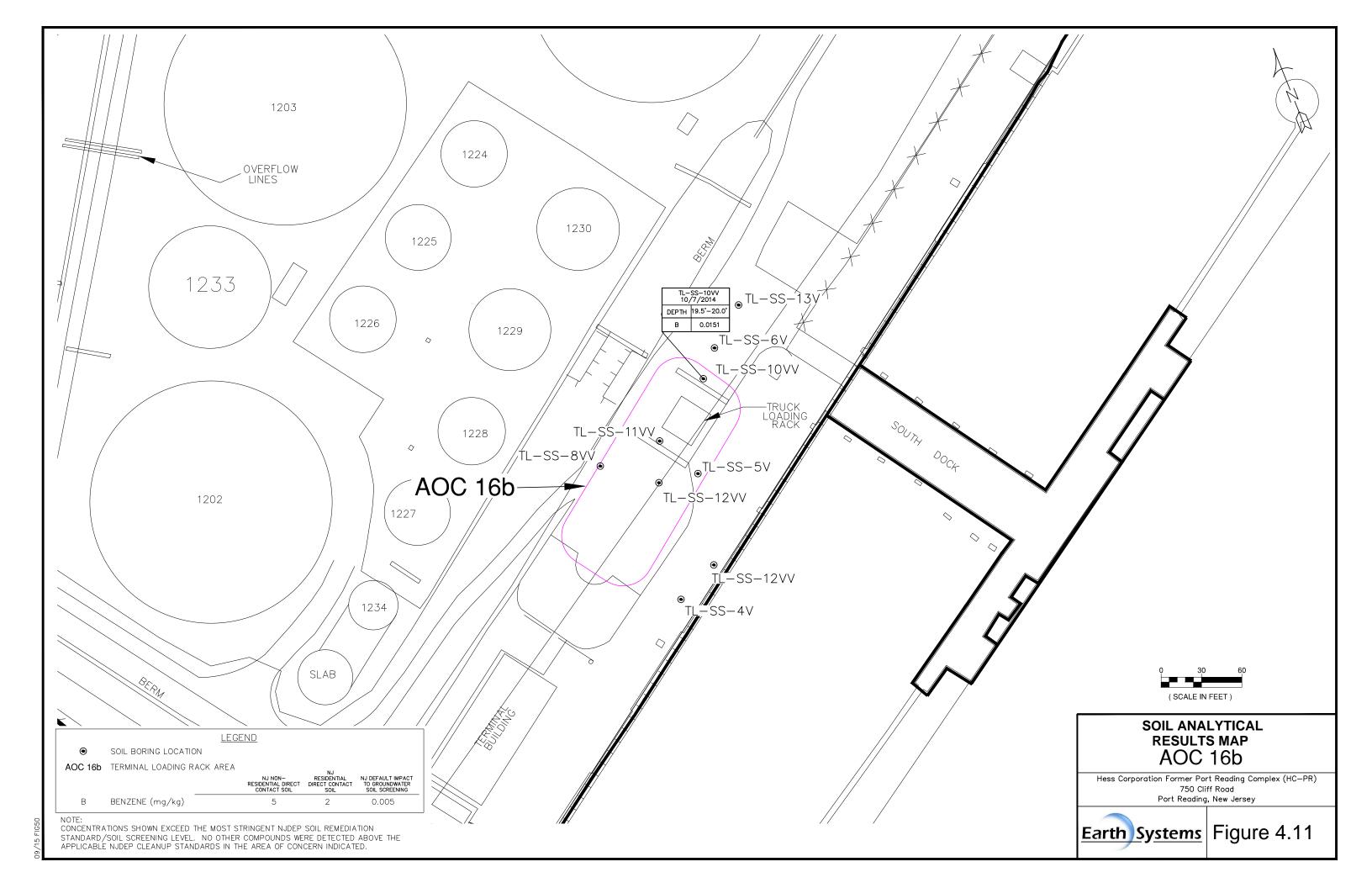


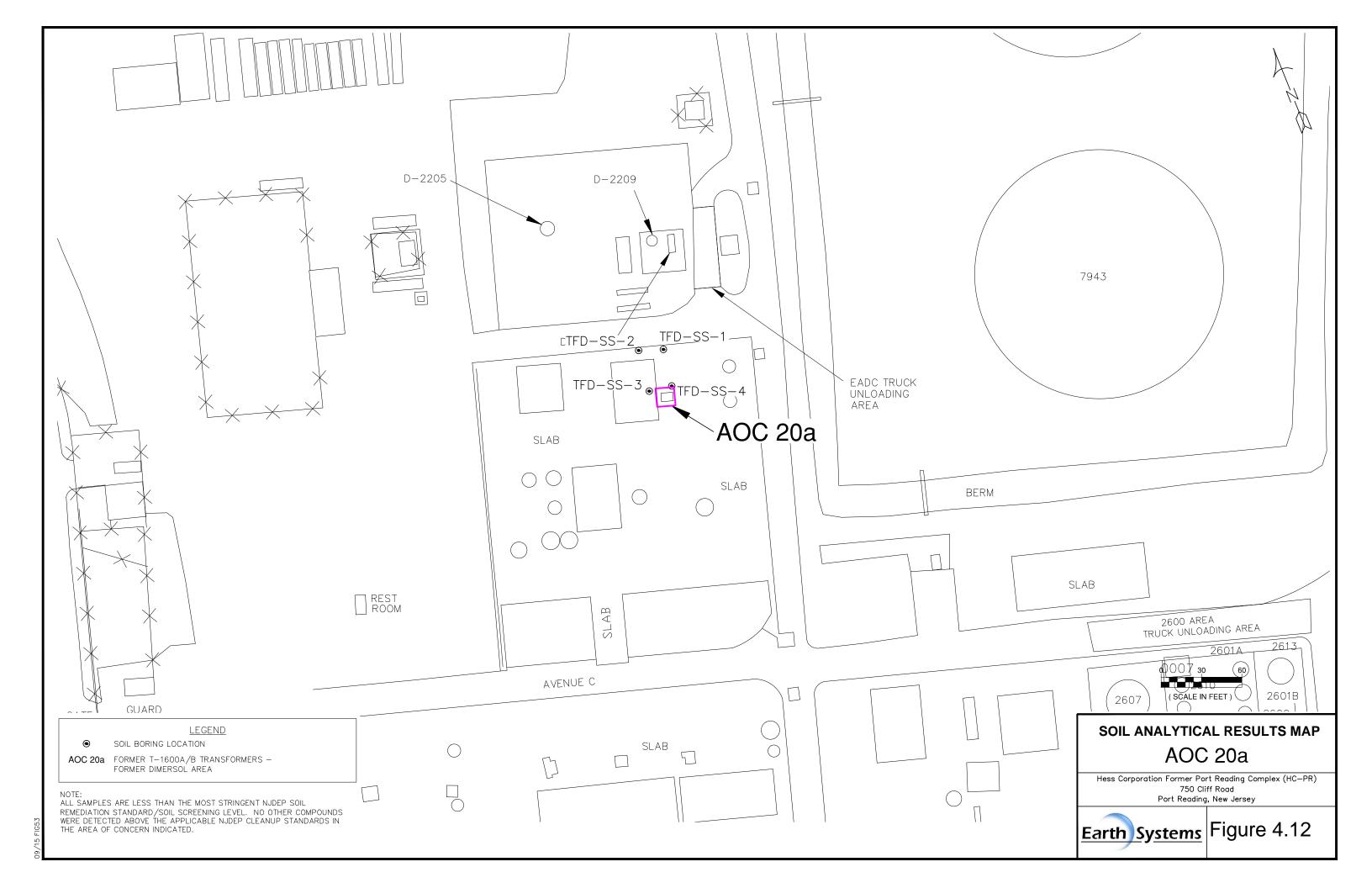


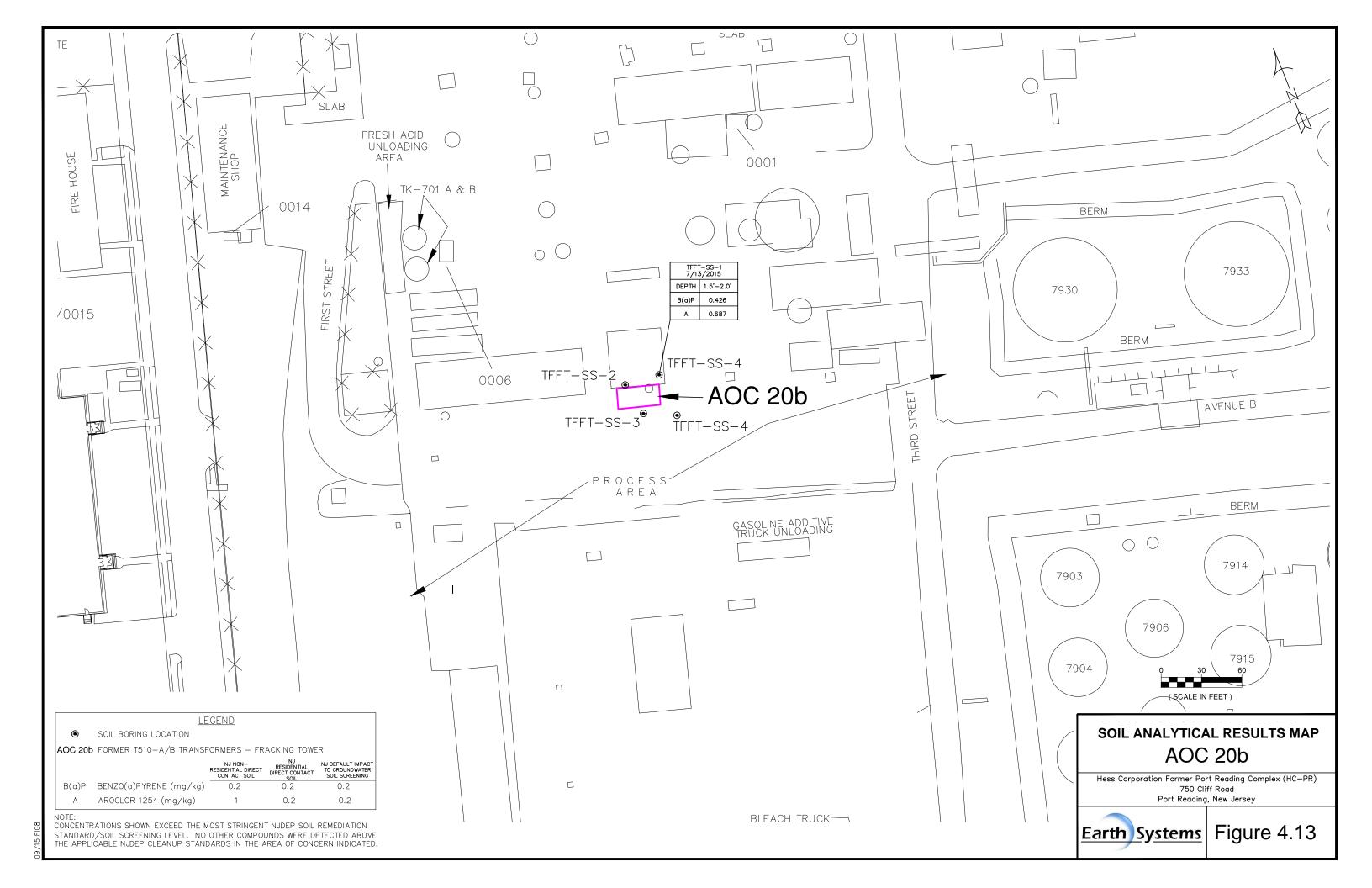


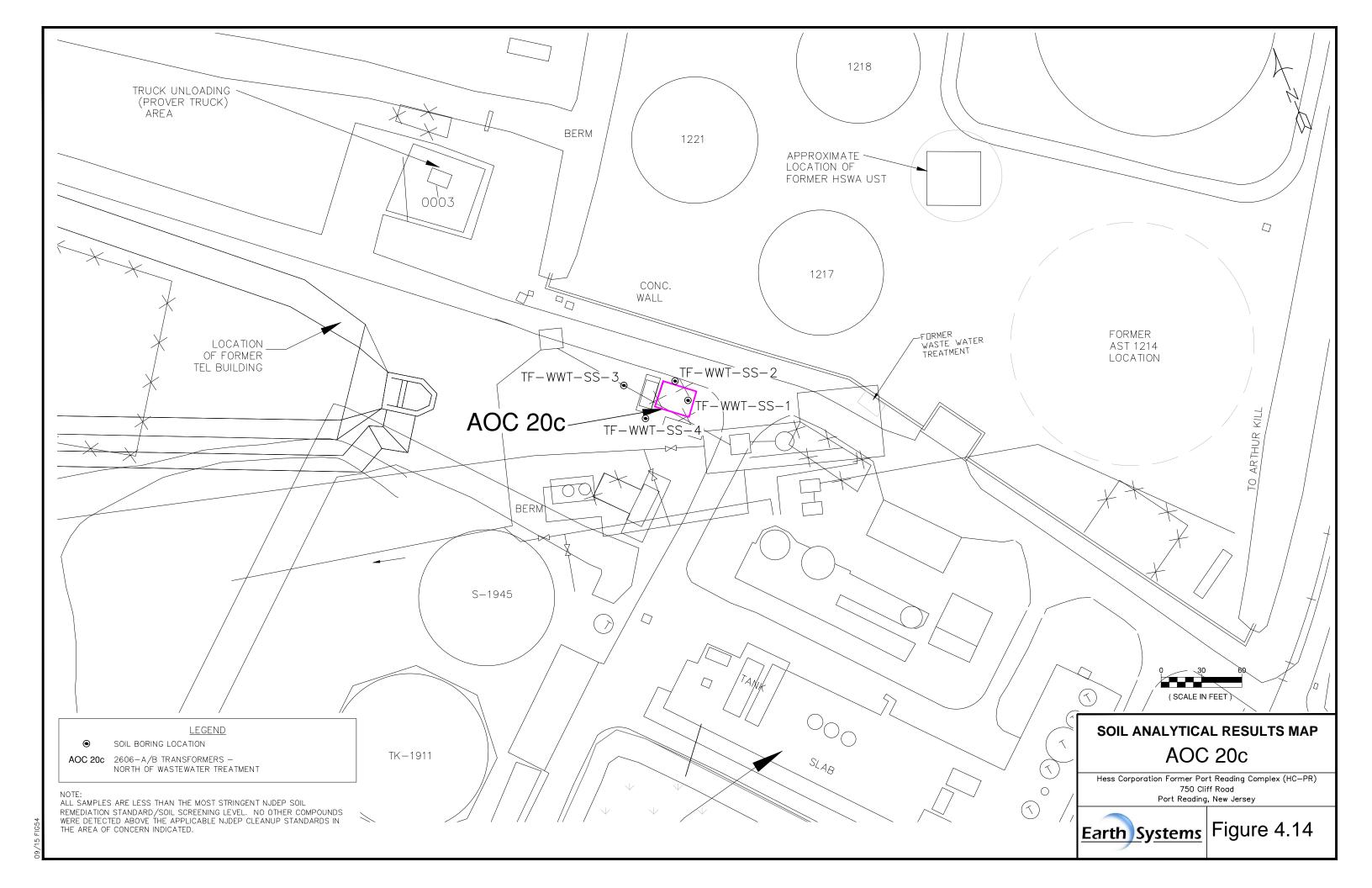


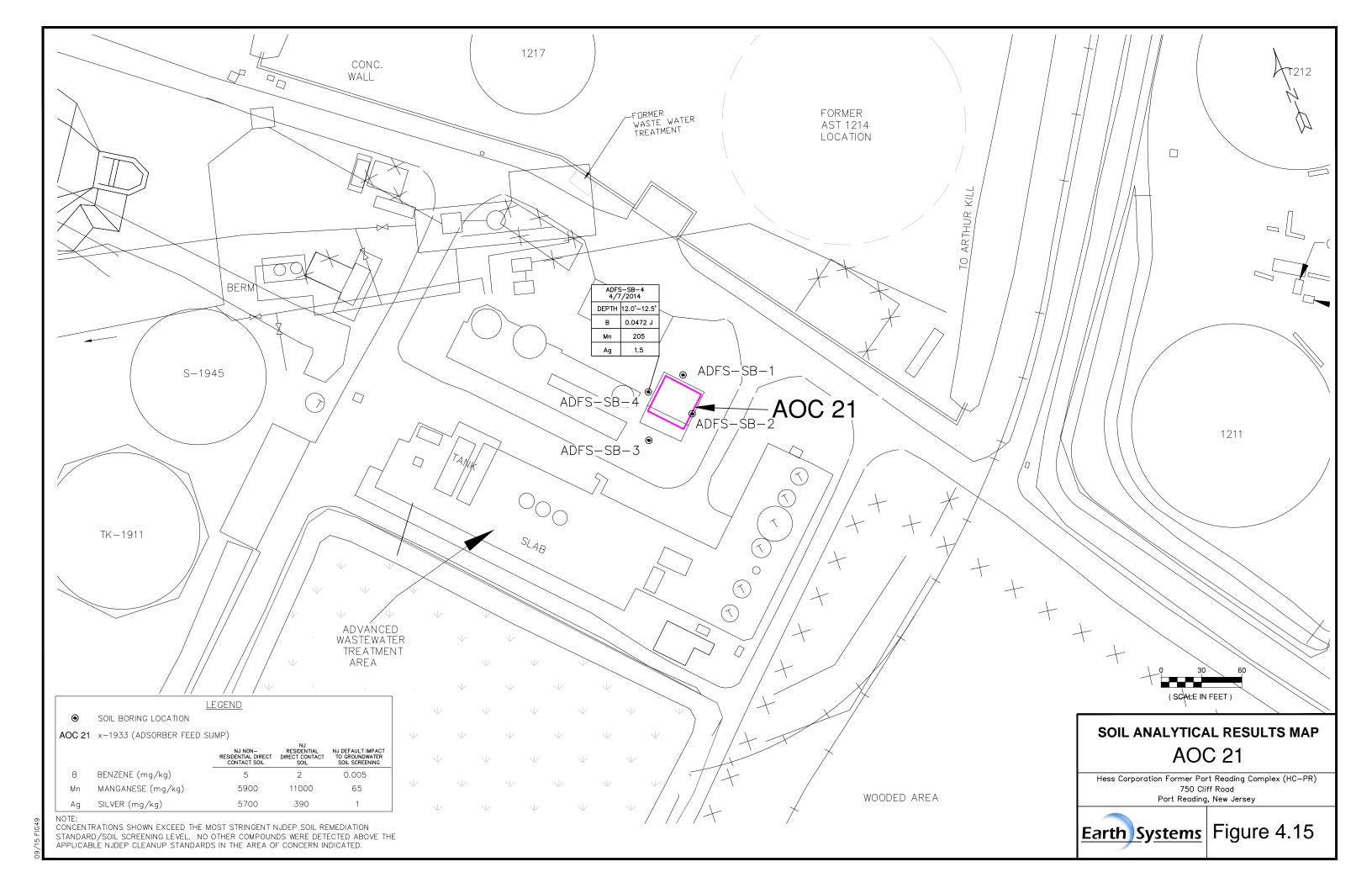


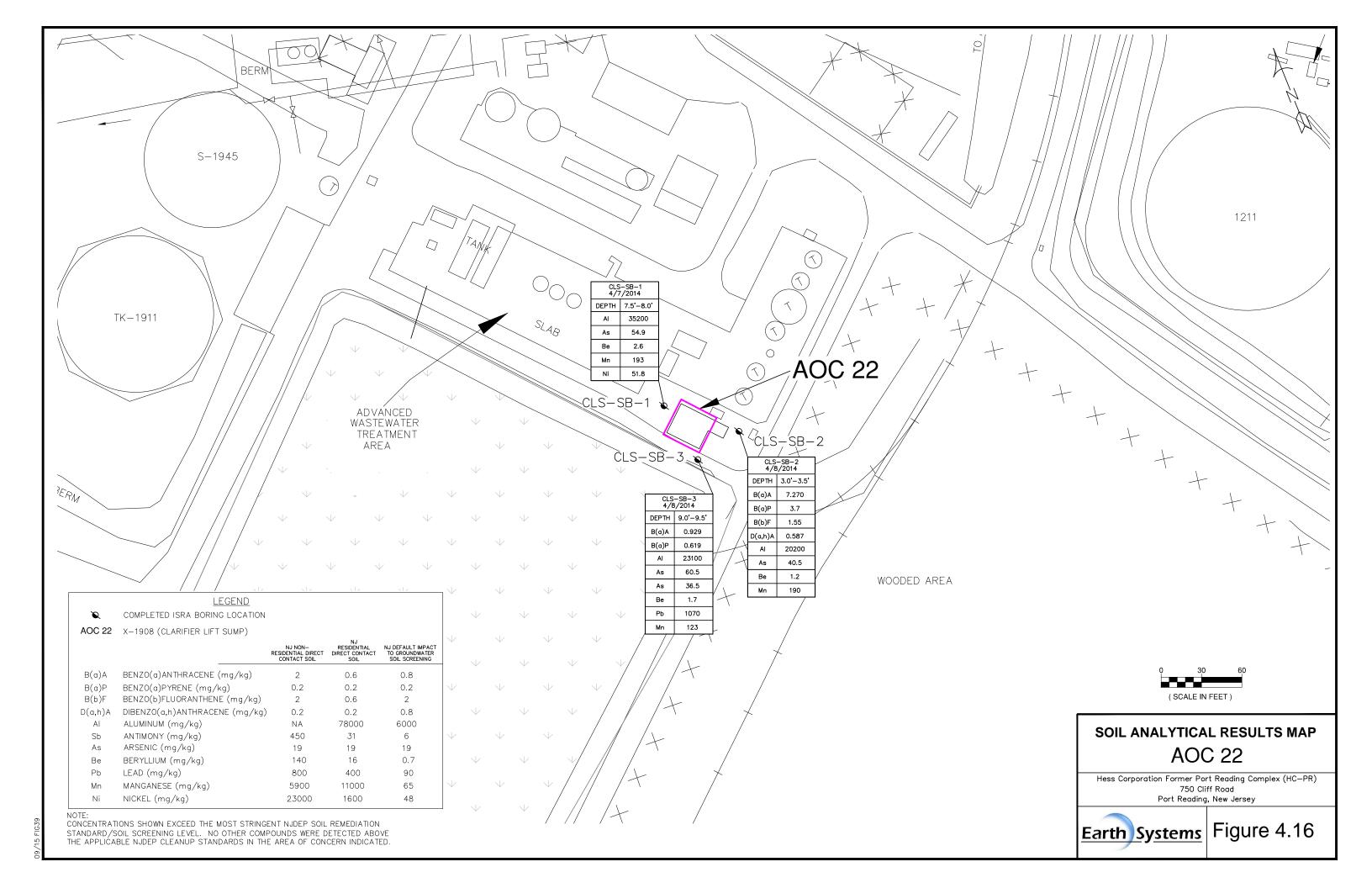


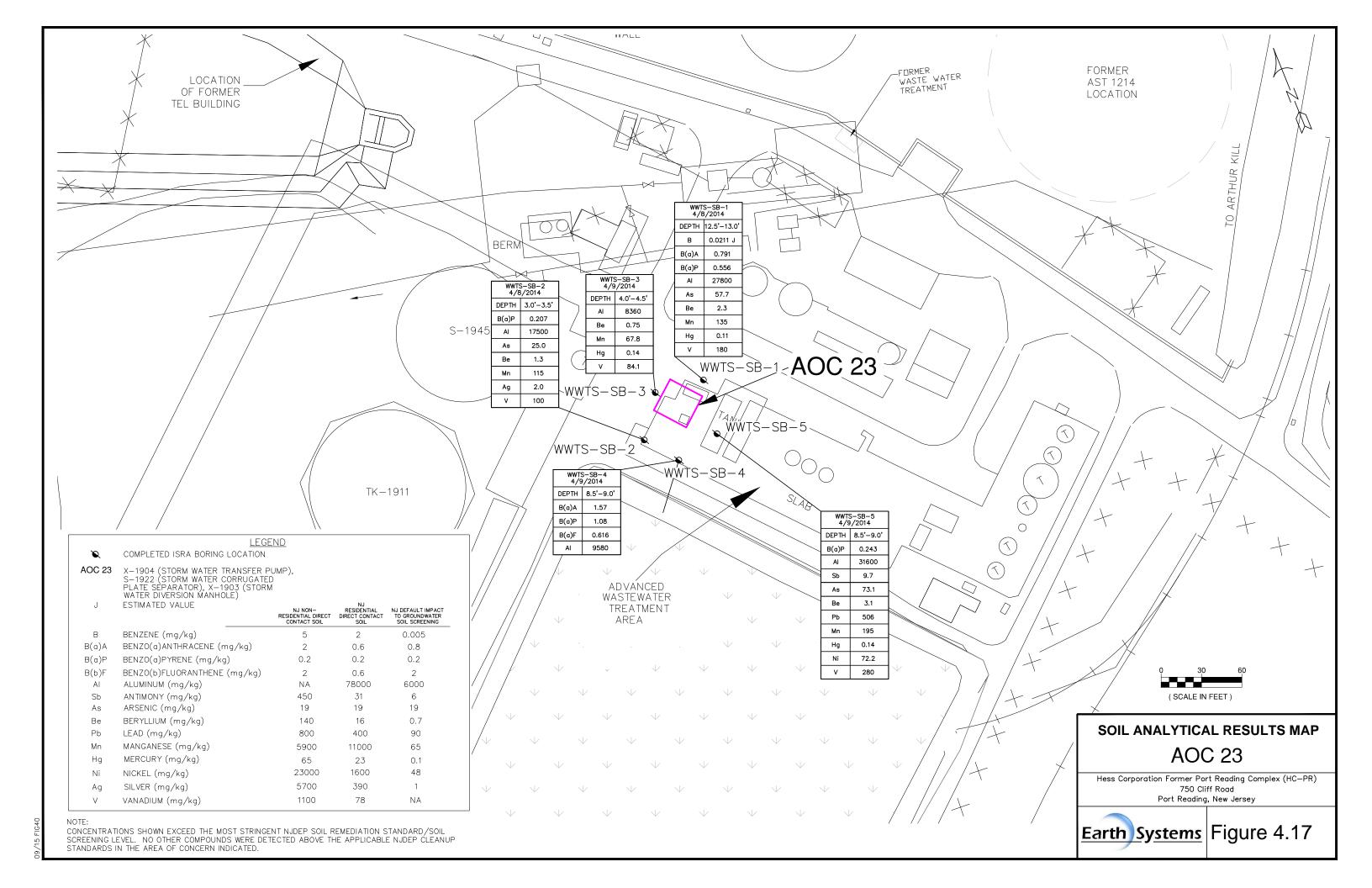


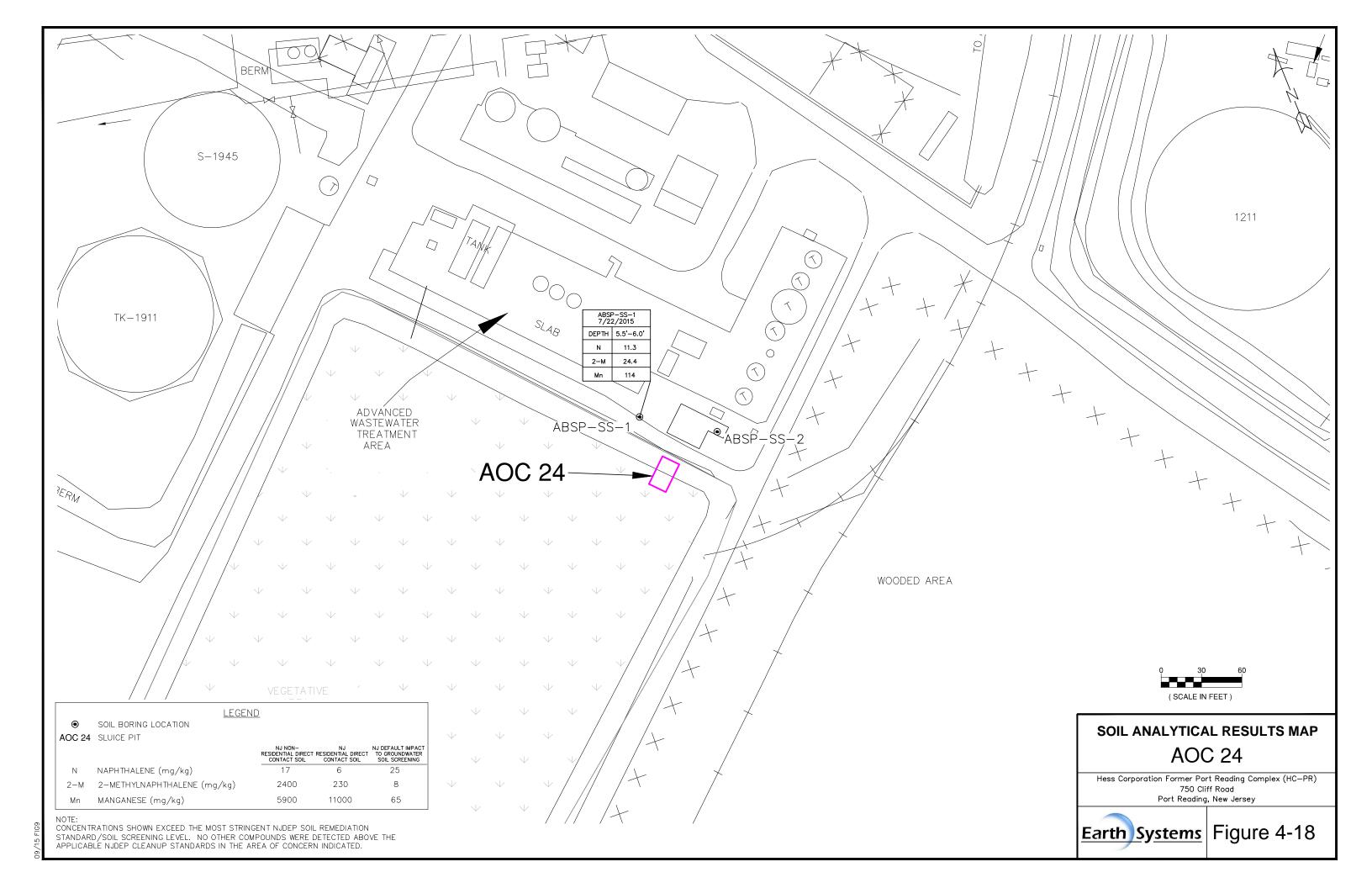










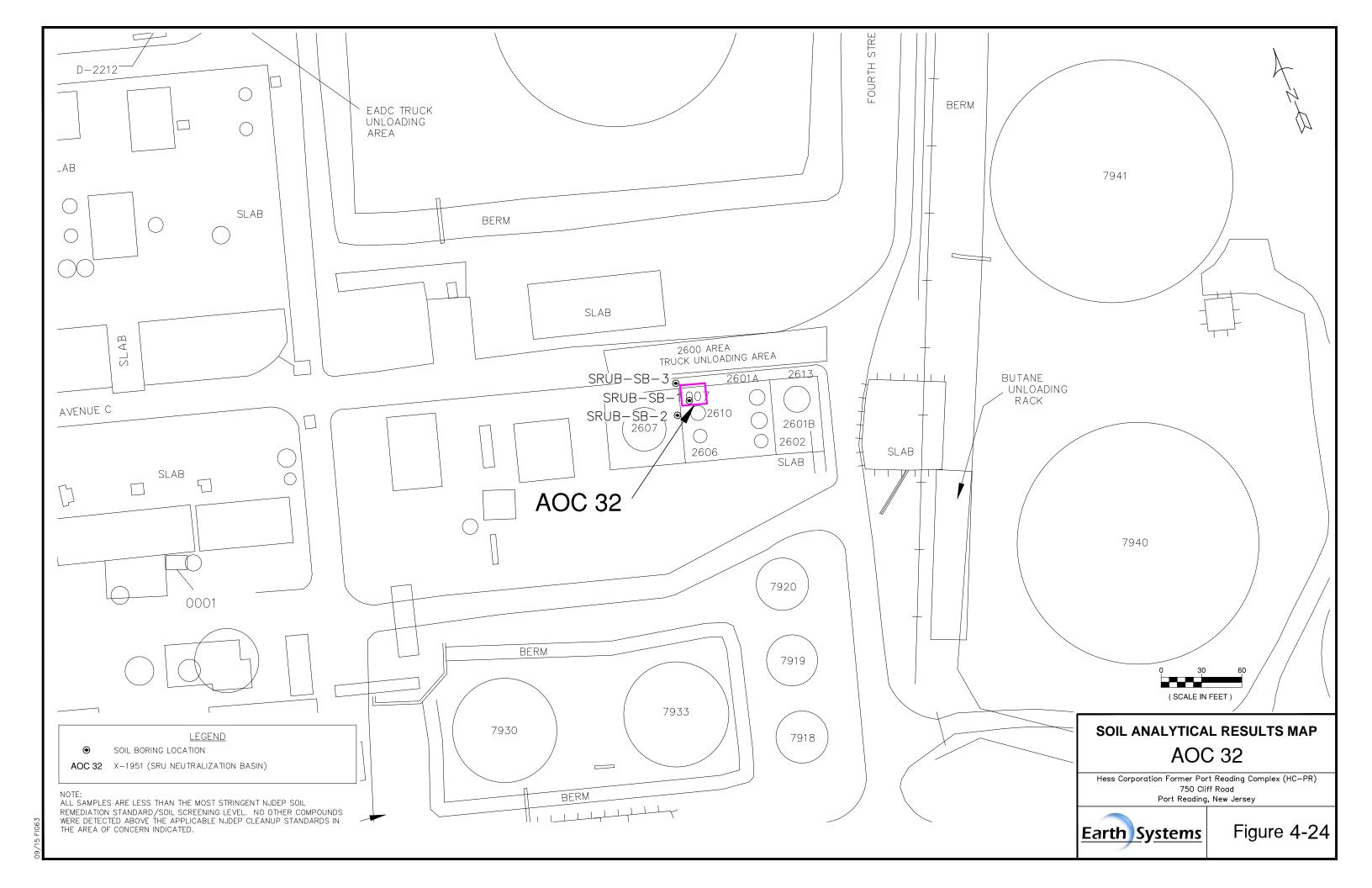


D:\Clients\E\EARTHSYSTEMS\HESS\OLD FIGS\basemap1_SOIL EXCEEDANCES.dwg, FIG10_AOC 25 40 & 92, 10/21/2015 12:56:33 PM, Pinnac

D:\Clients\EEARTHSYSTEMS\HESS\OLD FIGS\basemap1_SOIL EXCEEDANCES.dwg. FIG11_AOC 26, 10/21/2015 12:56:48 PM. Pinnade

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740

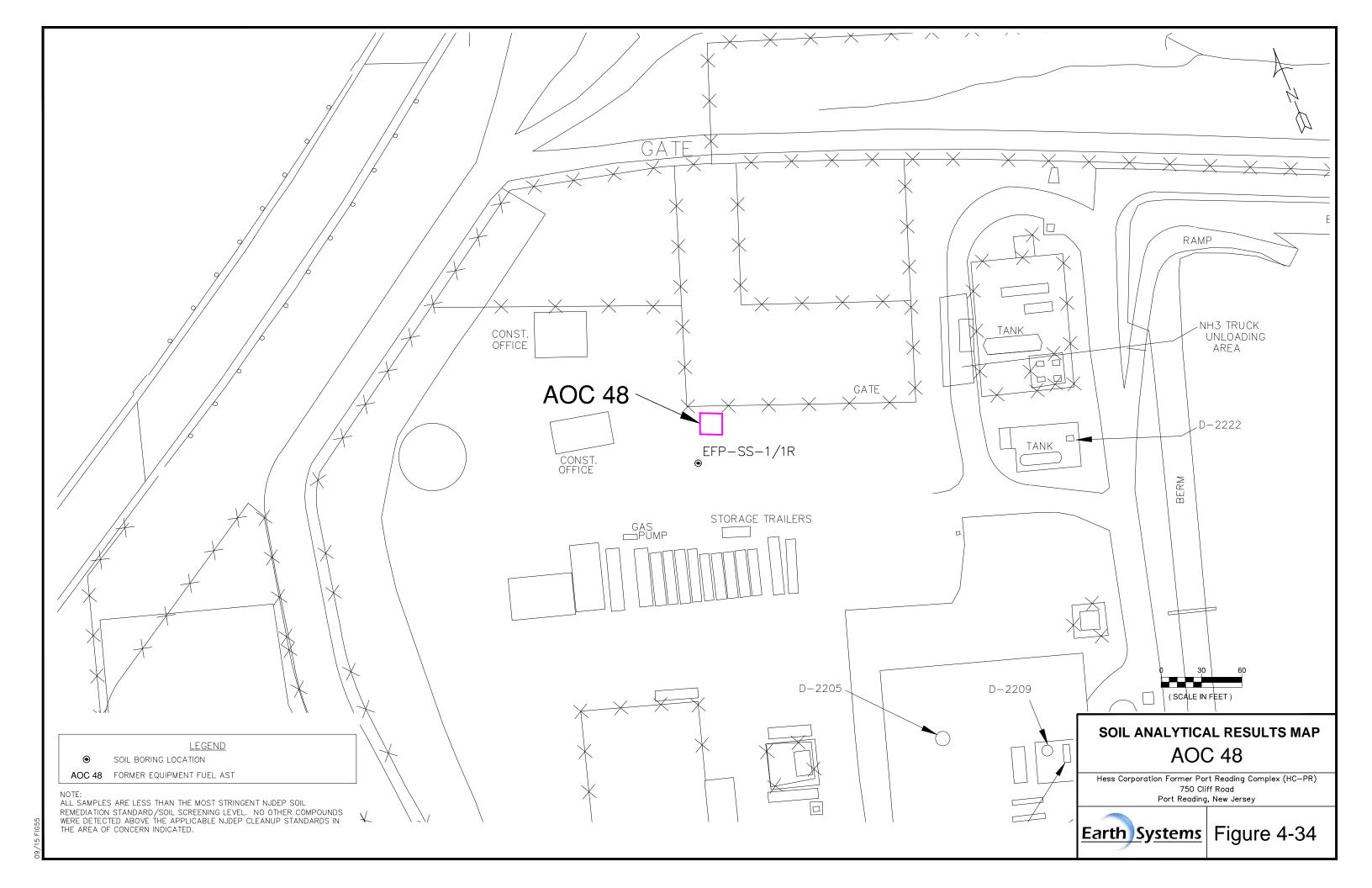
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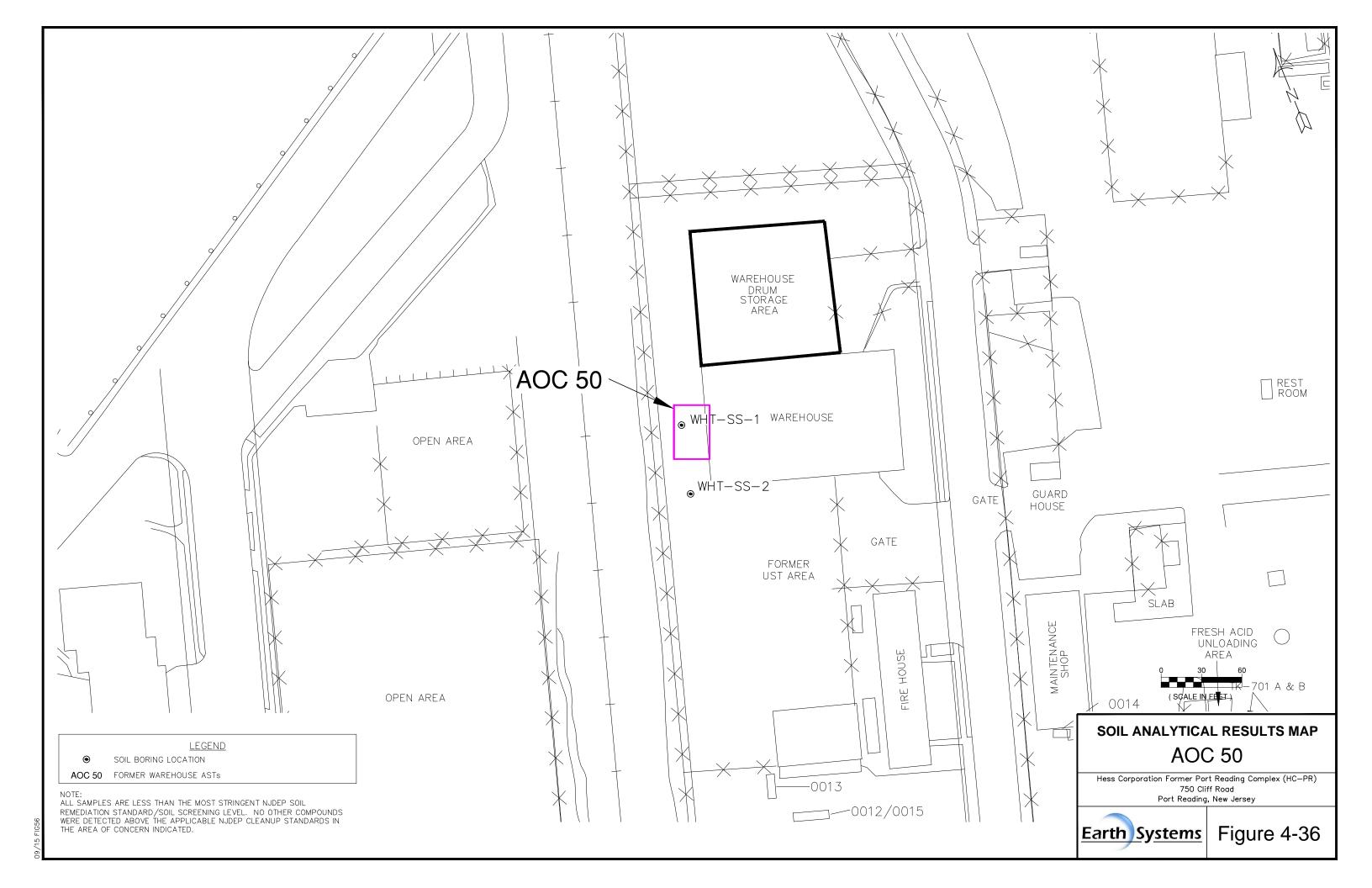
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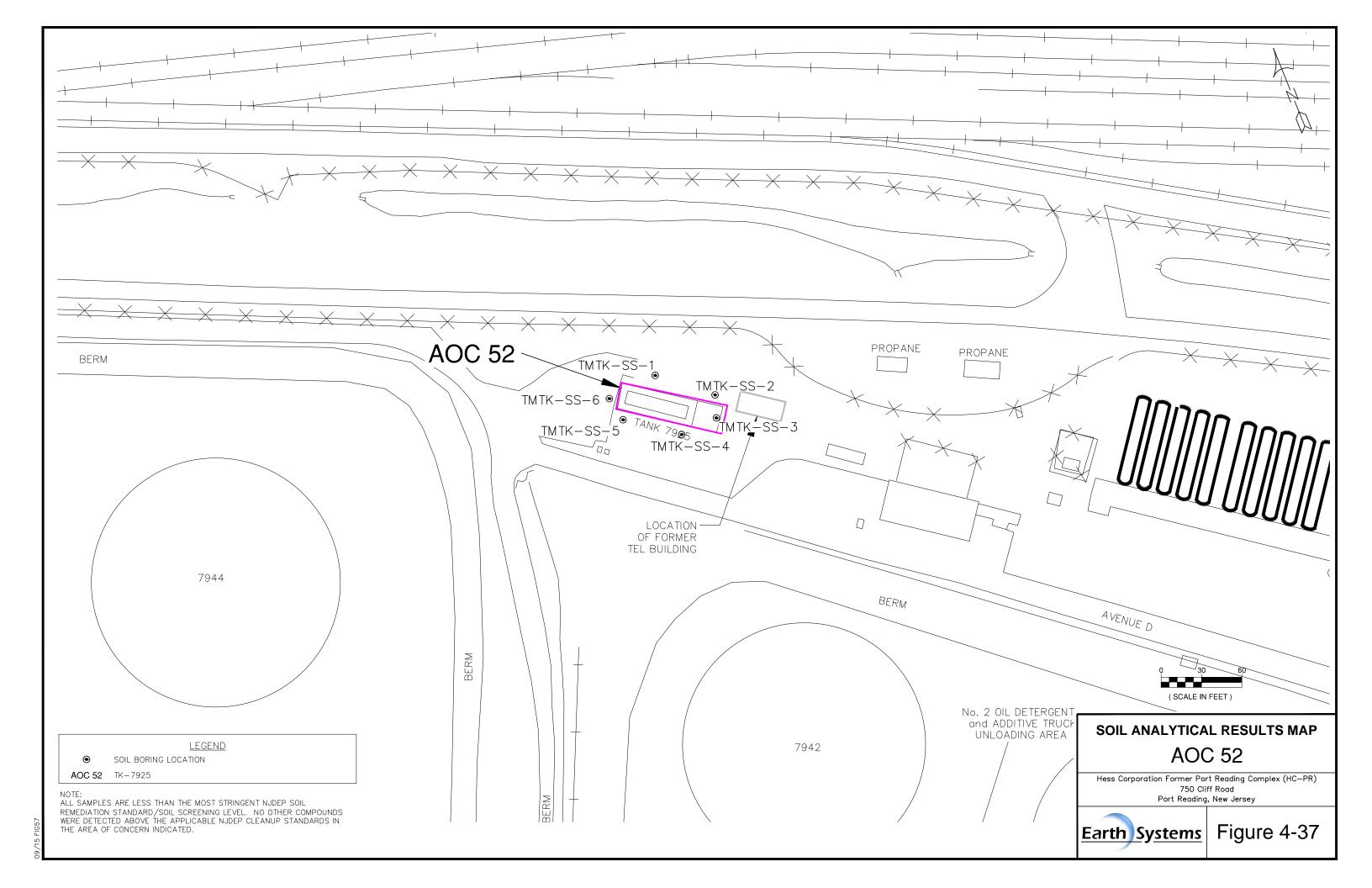
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D:\Clients\E\EARTHSYSTEMS\HESS\\OLD FIGS\basemap1_SOIL EXCEEDANCES.dwg, FIG42_AOC 46, 10/21/2015 1:07:40 PM, F

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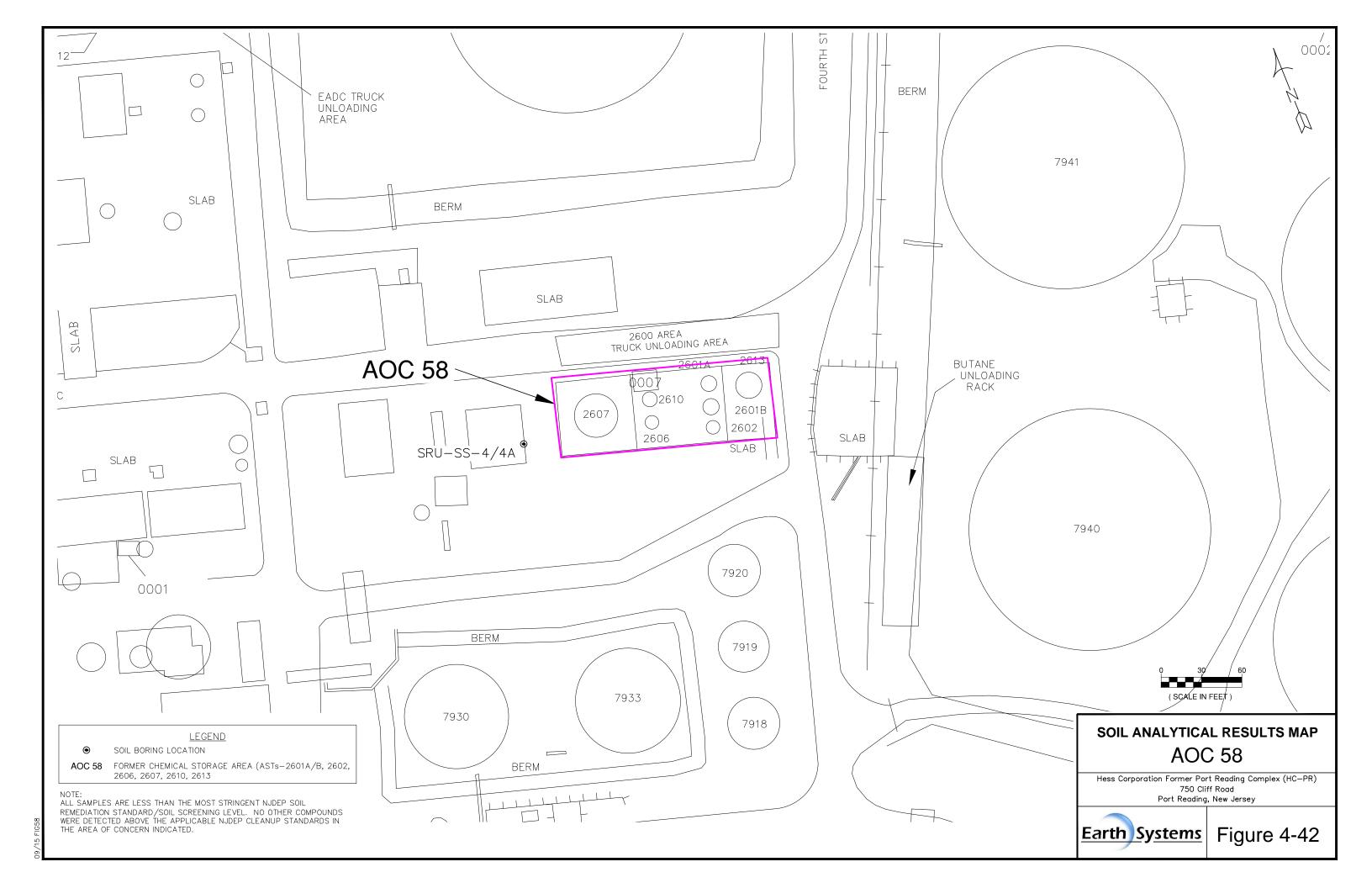
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STANDARD/SOIL SCREENING LEVEL. NO OTHER COMPOUNDS WERE DETECTED ABOVE THE APPLICABLE NJDEP CLEANUP STANDARDS IN THE AREA OF CONCERN INDICATED.

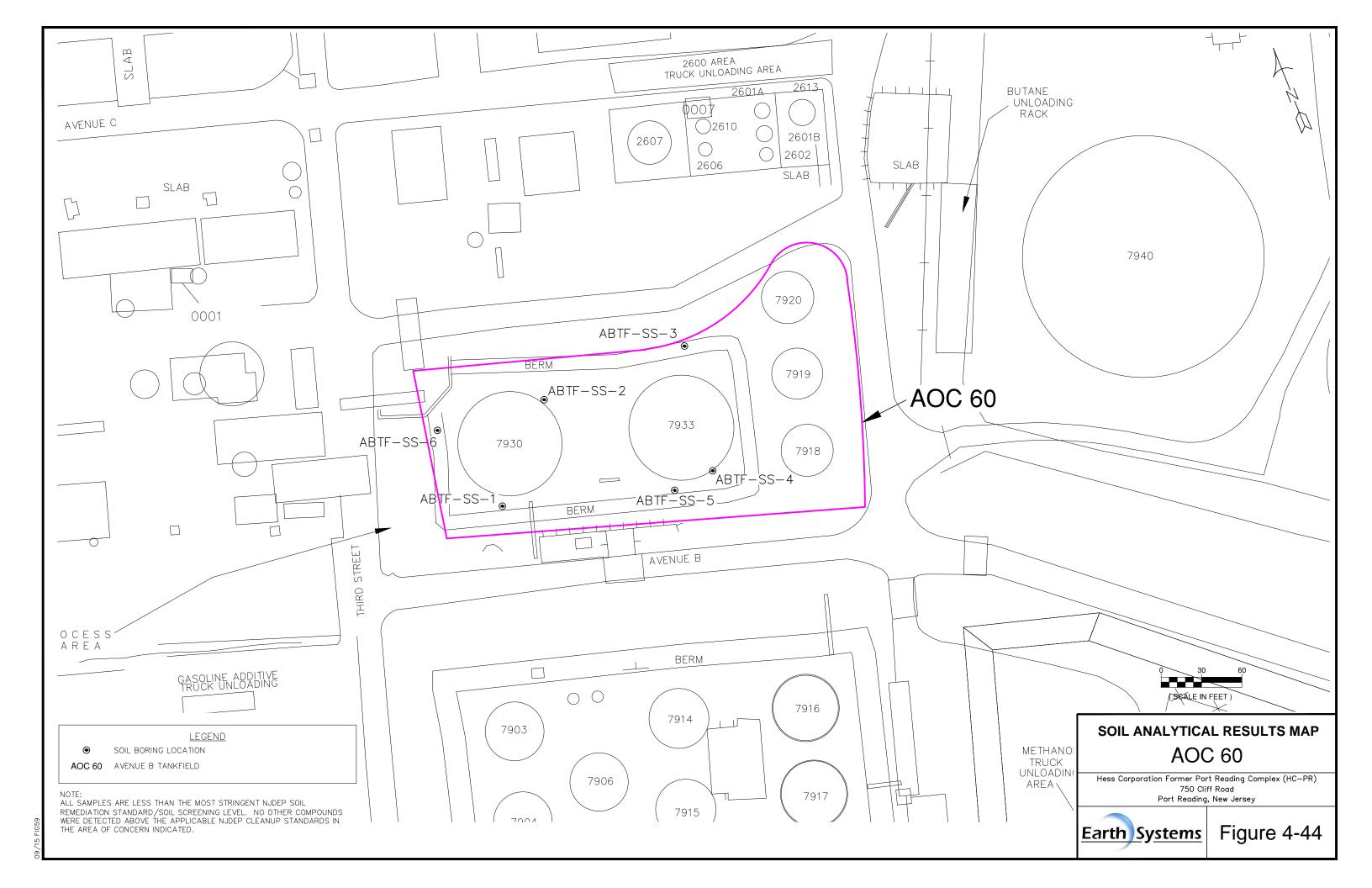
D:\Clients\E\EARTHSYSTEMS\HESS\OLD FIGS\basemap1_SOIL EXCEEDANCES.dwg, FIG45_AOC 56, 10/21/2015 1:08:52 PM, Pinnade

09 /15 FIG

STANDARD/SOIL SCREENING LEVEL. NO OTHER COMPOUNDS WERE DETECTED ABOVE THE APPLICABLE NJDEP CLEANUP STANDARDS IN THE AREA OF CONCERN INDICATED.

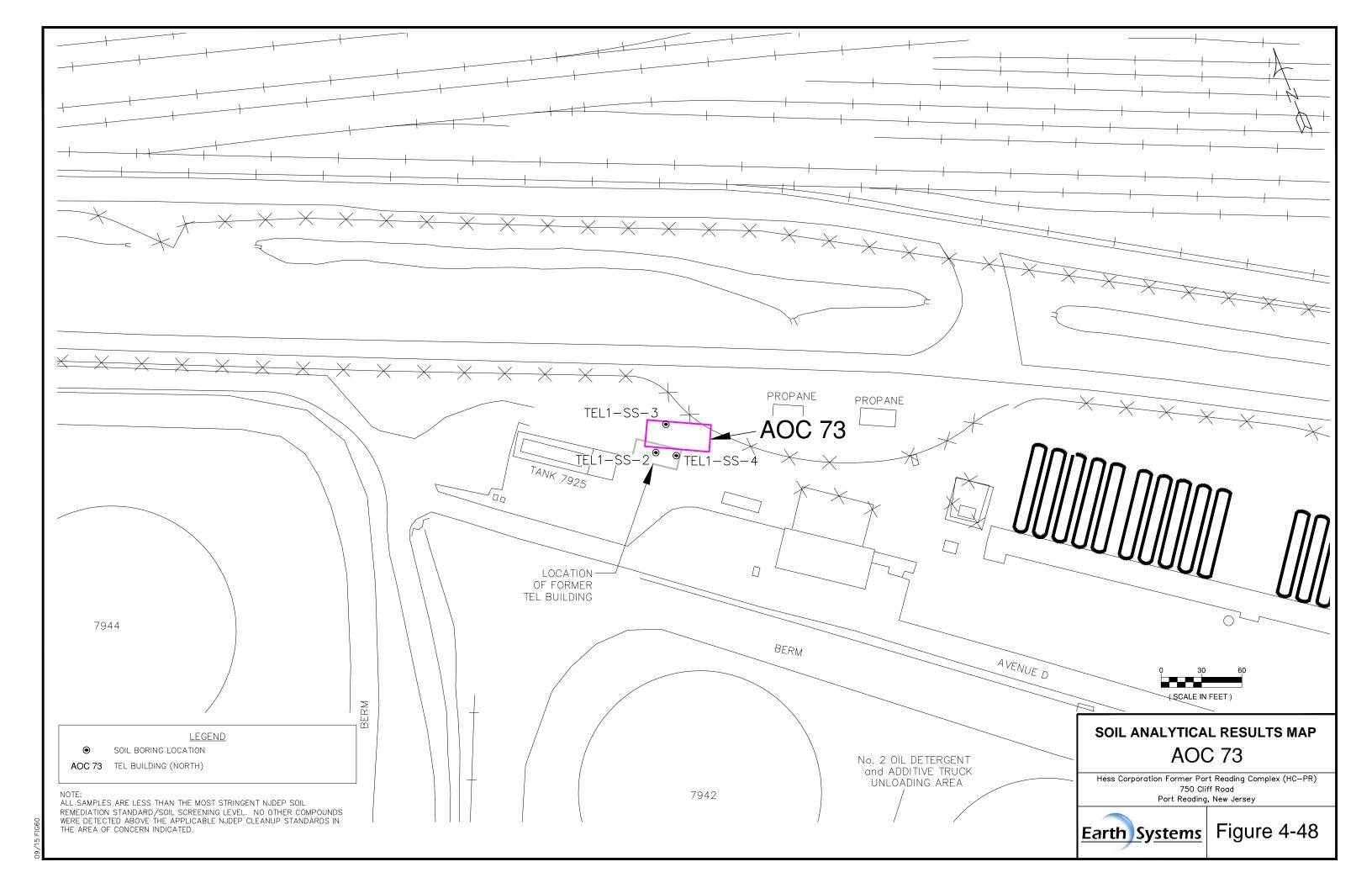


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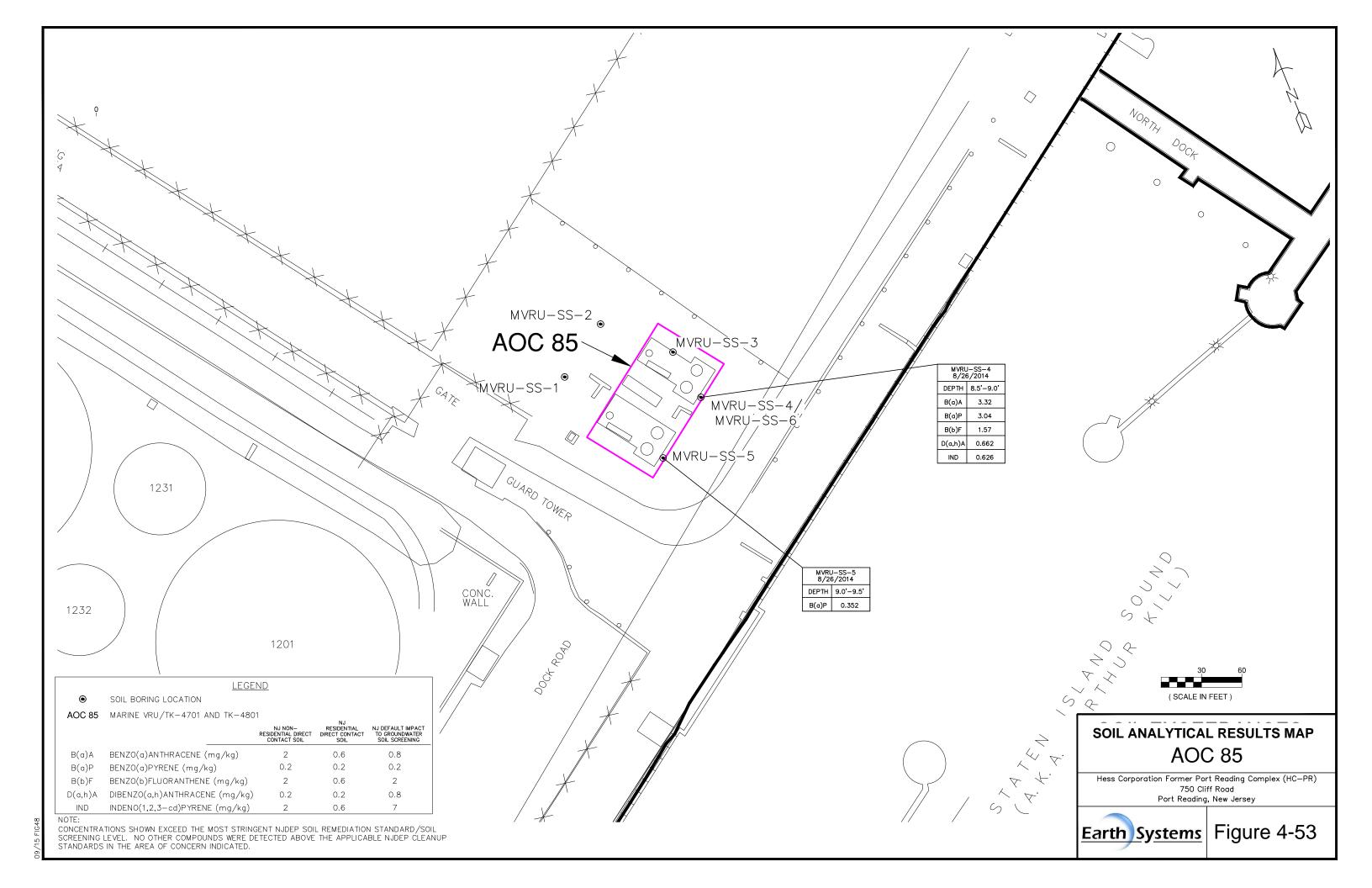


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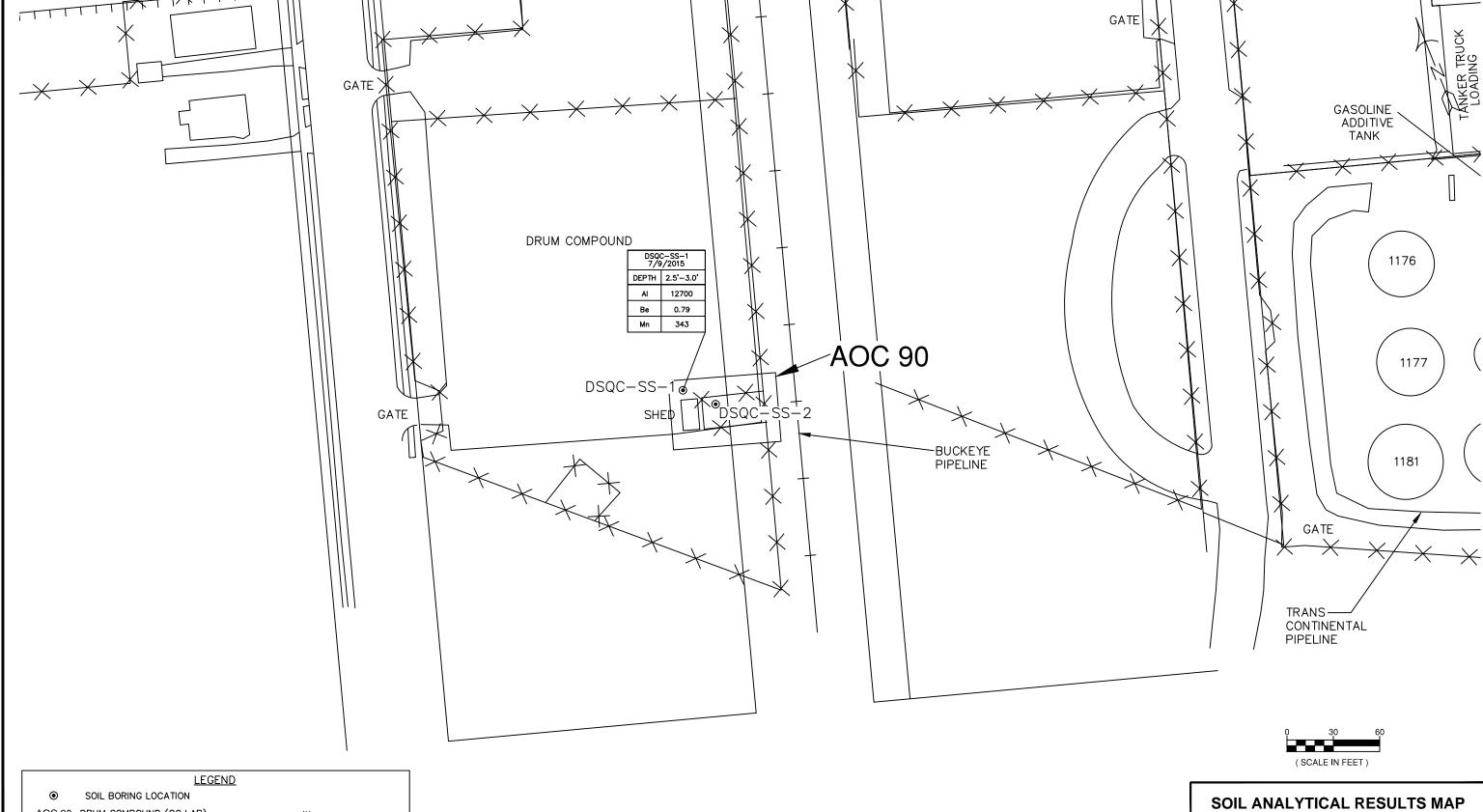
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CLEANUP STANDARDS IN THE AREA OF CONCERN INDICATED.



<u>LEGEND</u>									
•	SOIL BORING LOCATION								
AOC 90	DRUM COMPOUND (QC LAB)	NJ NON- RESIDENTIAL DIRECT CONTACT SOIL	NJ RESIDENTIAL DIRECT CONTACT SOIL	NJ DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING					
Al	ALUMINUM (mg/kg)	NA	78000	6000					
Ве	BERYLLIUM (mg/kg)	140	16	0.7					
Mn	MANGANESE (mg/kg)	5900	11000	65					

NOTE:
CONCENTRATIONS SHOWN EXCEED THE MOST STRINGENT NJDEP SOIL REMEDIATION
STANDARD/SOIL SCREENING LEVEL. NO OTHER COMPOUNDS WERE DETECTED ABOVE THE
APPLICABLE NJDEP CLEANUP STANDARDS IN THE AREA OF CONCERN INDICATED.

AOC 90

Hess Corporation Former Port Reading Complex (HC-PR)
750 Cliff Road Port Reading, New Jersey

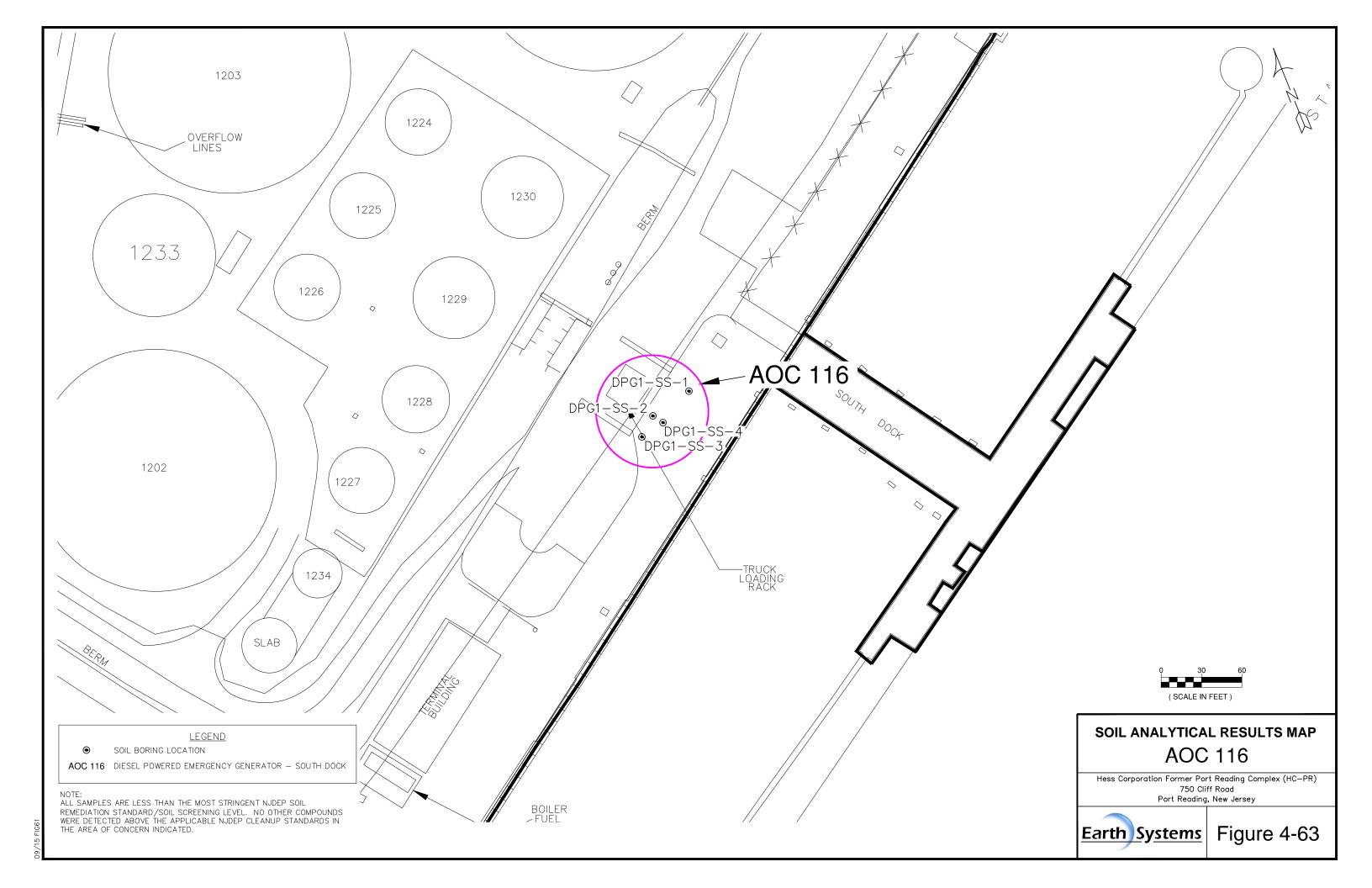
Earth Systems | Figure 4-57

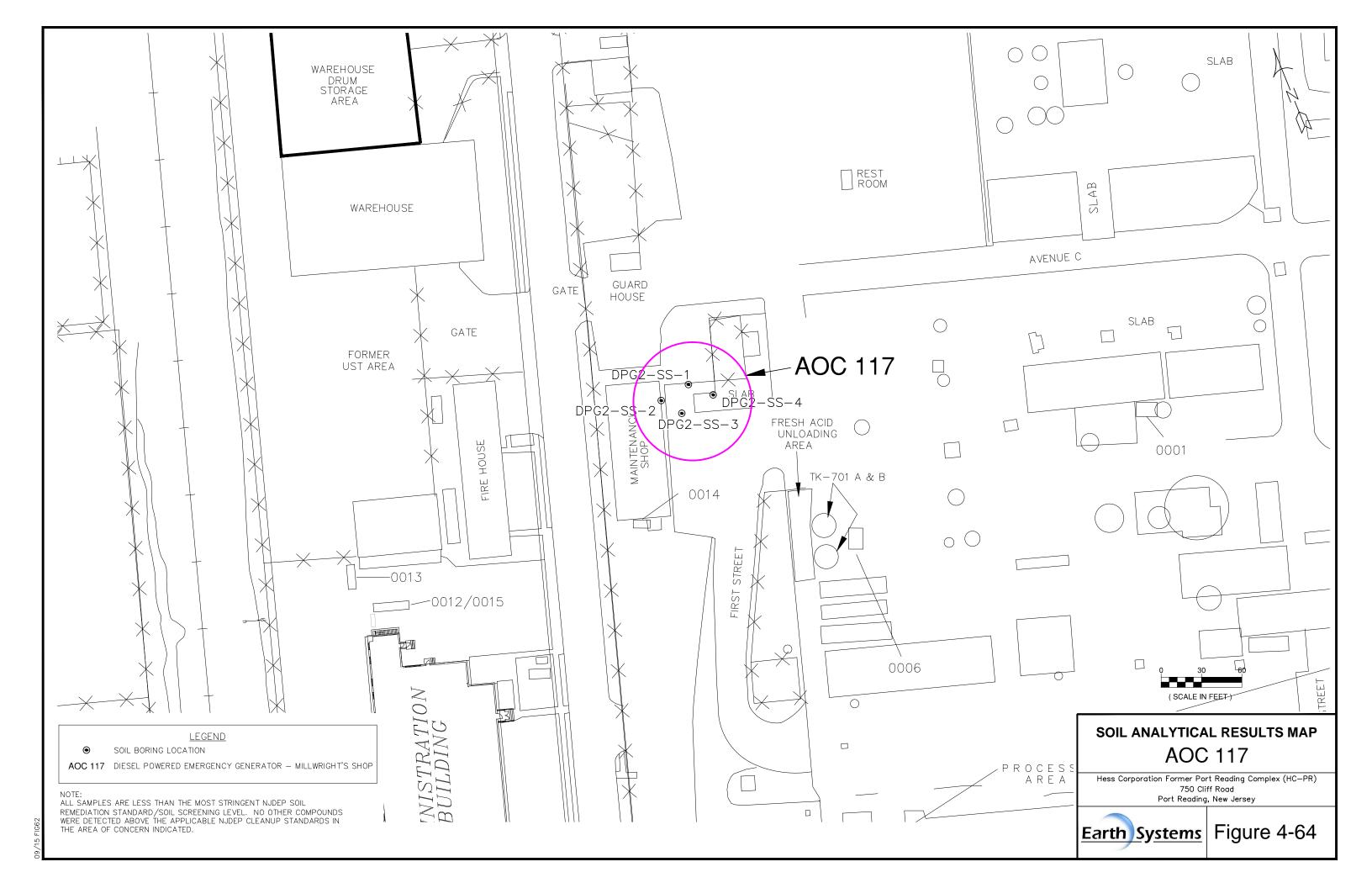
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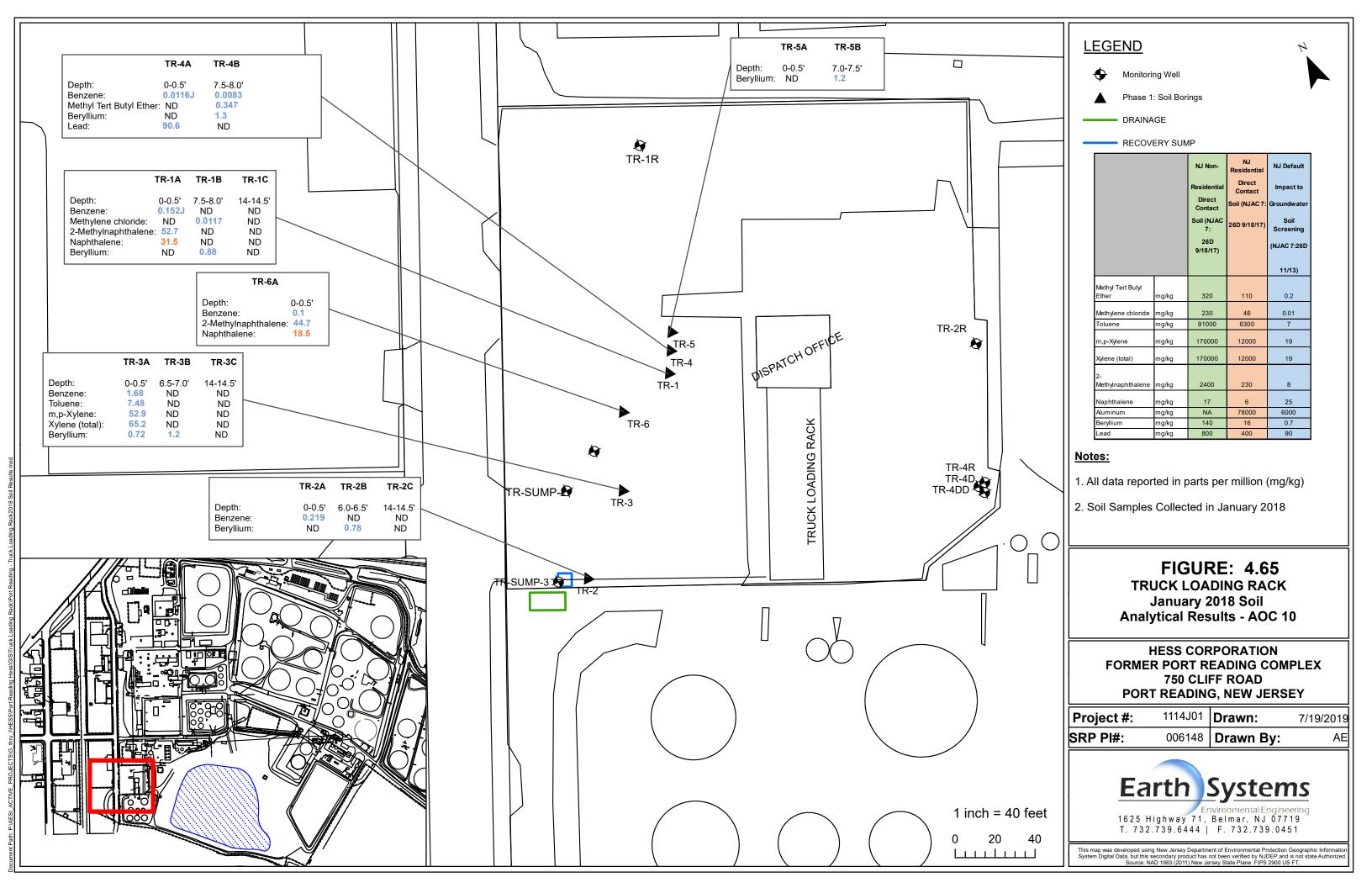
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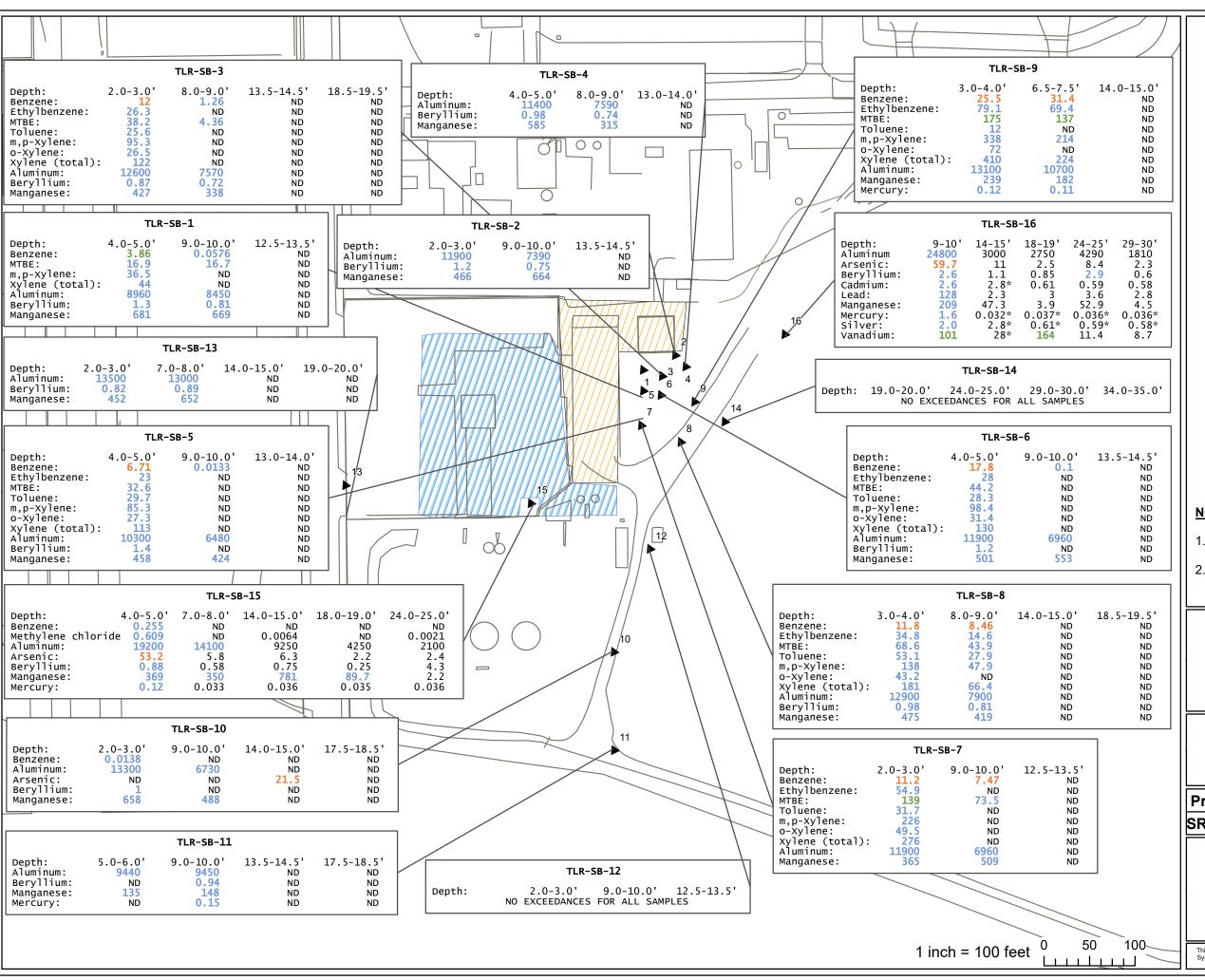
D:\Clients\E\EARTHSYSTEMS\HESS\\OLD\FIGS\\basemap1_SOIL\EXCEEDA\\CES.dwg,\FIG36\AOC 100, 10\z1/2015 1:04:57\PM, Pint

D:\Clients\E\EARTHSYSTEMS\HESS\\OLDFIGS\\basemap1_SOIL_EXCEEDA\\CES.dwg, FIG38_AOC 103, 10\21\2015 1:08:18 PM, Pinnack









LEGEND

Soil Boring Location



Areas Inaccessiable for Drilling

Debri

Debris/Obstructions



Safey			
	NJ Non-	NJ Residential	NJ Default
	Residential	Direct Contact	Impact to
	Direct Contact	Soil (NJAC 7:	Groundwater
	Soil (NJAC	26D	Soil
	7:	9/18/17)	Screening
	26D 9/18/17)		(NJAC 7:26D
	3/16/17)		11/13)
Benzene	5	2	0.005
Ethylbenzene	110000	7800	13
Methyl Tert Butyl Ether	320	110	0.2
Methylene chloride	230	46	0.01
Toluene	91000	6300	7
m,p-Xylene	170000	12000	19
o-Xylene	170000	12000	19
Xylene (total)	170000	12000	19
Total TIC, Volatile	-	i	-
Aluminum	NA	78000	6000
Arsenic	19	19	19
Beryllium	140	16	0.7
Cadmium	78	78	2
Lead	800	400	90
Manganese	5900	11000	65
Mercury	65	23	0.1
Silver	5700	390	1
Vanadium	1100	78	NA

Notes:

- 1. All data reported in parts per million (mg/kg)
- 2. Soil Samples Collected in June-August, 2019

TRUCK LOADING RACK 2019 Soil Analytical Results

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

 Project #:
 1114J01
 Drawn:
 7/23/2019

 SRP PI#:
 006148
 Drawn By:
 AE



This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

T. 732.739.6444 | F. 732.739.0451

Client Sample ID:		NJ Non- Residential Direct Contact	TF1-SS-1 (3.0-3.5)	TF1-SS-2 (1.5-2.0)	TF1-SS-3 (4.0-4.5)	TF1-SS-4 (2.5-3.0)	TF1-SS-5 (9.5-10.0)	TF1-SS-6 (1.0-1.5)	TF1-SS-7 (1.0-1.5)
Lab Sample ID:		Soil (NJAC 7:	JB77402-1 9/22/2014	JB77402-2	JB77402-3	JB77402-4	JB77492-1 9/23/2014	JB77402-5 9/22/2014	JB77402-6
Date Sampled: Matrix:		26D 6/08)	Soil	9/22/2014 Soil	9/22/2014 Soil	9/22/2014 Soil	9/23/2014 Soil	9/22/2014 Soil	9/22/2014 Soil
									•
Volatile Organic Compounds									
Acetone	mg/kg	-	0.0507	ND (0.28)	0.0368	0.0229	0.0161	ND (0.18)	0.0422
Benzene	mg/kg	5	ND (0.00026)	ND (0.019)	ND (0.00014)	ND (0.00016)	0.00029 J	ND (0.013)	ND (0.00019)
Bromochloromethane	mg/kg	-	ND (0.00041)	ND (0.030)	ND (0.00023)	ND (0.00025)	ND (0.00024)	ND (0.020)	ND (0.00030)
Bromodichloromethane	mg/kg	3	ND (0.00030)	ND (0.022)	ND (0.00017)	ND (0.00019)	ND (0.00017)	ND (0.015)	ND (0.00022)
Bromoform Bromomethane	mg/kg mg/kg	280 59	ND (0.00026) ND (0.00043)	ND (0.020) ND (0.032)	ND (0.00015) ND (0.00024)	ND (0.00016) ND (0.00027)	ND (0.00015) ND (0.00025)	ND (0.013) ND (0.021)	ND (0.00019) ND (0.00032)
2-Butanone (MEK)	mg/kg	44,000	ND (0.00043)	ND (0.032)	0.0068 J	ND (0.00027)	ND (0.00023)	ND (0.021)	ND (0.00032)
Carbon disulfide	mg/kg	110,000	0.0018 J	ND (0.032)	0.00044 J	0.0027	ND (0.00025)	ND (0.021)	ND (0.0020)
Carbon tetrachloride	mg/kg	2	ND (0.00021)	ND (0.016)	ND (0.00012)	ND (0.00013)	ND (0.00012)	ND (0.010)	ND (0.00015)
Chlorobenzene	mg/kg	7,400	ND (0.00021)	ND (0.015)	ND (0.00011)	ND (0.00013)	ND (0.00012)	ND (0.010)	ND (0.00015)
Chloroethane	mg/kg	1,100	ND (0.00042)	ND (0.031)	ND (0.00023)	ND (0.00026)	ND (0.00024)	ND (0.020)	ND (0.00031)
Chloroform	mg/kg	2	ND (0.00020)	ND (0.015)	ND (0.00011)	ND (0.00012)	ND (0.00012)	ND (0.0097)	ND (0.00015)
Chloromethane	mg/kg	12	ND (0.00045)	ND (0.033)	ND (0.00025)	ND (0.00028)	ND (0.00026)	ND (0.022)	ND (0.00033)
Cyclohexane 1.2 Dibromo 3 chloropropano	mg/kg	0.2	ND (0.00052)	ND (0.039)	ND (0.00029)	ND (0.00032)	0.00036 J	ND (0.025)	ND (0.00038)
1,2-Dibromo-3-chloropropane Dibromochloromethane	mg/kg mg/kg	8	ND (0.00058) ND (0.00026)	ND (0.043) ND (0.019)	ND (0.00032) ND (0.00014)	ND (0.00036) ND (0.00016)	ND (0.00033) ND (0.00015)	ND (0.028) ND (0.013)	ND (0.00042) ND (0.00019)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00026)	ND (0.019)	ND (0.00014)	ND (0.00016)	ND (0.00015)	ND (0.013)	ND (0.00019)
1,2-Dichlorobenzene	mg/kg	59,000	ND (0.00027)	ND (0.021)	ND (0.00015)	ND (0.00017)	ND (0.00016)	ND (0.014)	ND (0.00021)
1,3-Dichlorobenzene	mg/kg	59,000	ND (0.00029)	ND (0.021)	ND (0.00016)	ND (0.00018)	ND (0.00017)	ND (0.014)	ND (0.00021)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00024)	ND (0.018)	ND (0.00014)	ND (0.00015)	ND (0.00014)	ND (0.012)	ND (0.00018)
Dichlorodifluoromethane	mg/kg	230,000	ND (0.00077)	ND (0.057)	ND (0.00043)	ND (0.00048)	ND (0.00045)	ND (0.037)	ND (0.00057)
1,1-Dichloroethane	mg/kg	24	ND (0.00027)	ND (0.020)	ND (0.00015)	ND (0.00017)	ND (0.00016)	ND (0.013)	ND (0.00020)
1,2-Dichloroethane	mg/kg	3	ND (0.00037)	ND (0.028)	ND (0.00021)	ND (0.00023)	ND (0.00022)	ND (0.018)	ND (0.00028)
1,1-Dichloroethene	mg/kg	150	ND (0.00041)	ND (0.030)	ND (0.00023)	ND (0.00025)	ND (0.00024)	ND (0.020)	ND (0.00030)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00039)	ND (0.029)	ND (0.00021)	ND (0.00024)	ND (0.00022)	ND (0.019)	ND (0.00028)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00028)	ND (0.021)	ND (0.00015)	ND (0.00017) ND (0.00016)	ND (0.00016) ND (0.00015)	ND (0.014)	ND (0.00021) ND (0.00019)
1,2-Dichloropropane cis-1,3-Dichloropropene	mg/kg	5 7	ND (0.00025) ND (0.00019)	ND (0.019) ND (0.014)	ND (0.00014) ND (0.00010)	ND (0.00018)	ND (0.00013)	ND (0.012) ND (0.0091)	ND (0.00019)
trans-1,3-Dichloropropene	mg/kg mg/kg	7	ND (0.00019)	ND (0.014)	ND (0.00010)	ND (0.00012)	ND (0.00011)	ND (0.0091)	ND (0.00014)
Ethylbenzene	mg/kg	110,000	ND (0.00029)	ND (0.021)	ND (0.00014)	ND (0.00018)	0.0055	ND (0.014)	0.00028 J
Freon 113	mg/kg	-	ND (0.00080)	ND (0.060)	ND (0.00044)	ND (0.00050)	ND (0.00046)	ND (0.039)	ND (0.00059)
2-Hexanone	mg/kg	-	ND (0.0024)	ND (0.18)	ND (0.0013)	ND (0.0015)	ND (0.0014)	ND (0.11)	ND (0.0017)
Isopropylbenzene	mg/kg	-	ND (0.00027)	0.811	ND (0.00015)	ND (0.00017)	0.0017 J	0.804	0.0285
Methyl Acetate	mg/kg	-	ND (0.0016)	ND (0.12)	ND (0.00090)	ND (0.0010)	ND (0.00094)	ND (0.079)	ND (0.0012)
Methylcyclohexane	mg/kg	-	ND (0.00032)	0.248	ND (0.00018)	ND (0.00020)	0.00034 J	1.29	0.003
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00025)	ND (0.018)	ND (0.00014)	ND (0.00015)	0.0018	ND (0.012)	ND (0.00018)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00079)	ND (0.059)	ND (0.00044)	ND (0.00049)	ND (0.00046)	ND (0.038)	ND (0.00058)
Methylene chloride	mg/kg	97	ND (0.0022)	ND (0.16)	0.0016 J	ND (0.0014)	ND (0.0013)	ND (0.11)	ND (0.0016)
Styrene Tert Butyl Alcohol	mg/kg mg/kg	260 11,000	ND (0.00027) ND (0.0040)	ND (0.020) ND (0.30)	ND (0.00015) ND (0.0022)	ND (0.00016) ND (0.0025)	ND (0.00015) 0.0128 J	ND (0.013) ND (0.20)	ND (0.00020) ND (0.0030)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.0040)	ND (0.024)	ND (0.0022)	ND (0.0023)	ND (0.00019)	ND (0.20)	ND (0.0030)
Tetrachloroethene	mg/kg	5	ND (0.00032)	ND (0.019)	ND (0.00014)	ND (0.00020)	ND (0.00015)	ND (0.013)	ND (0.00024)
Toluene	mg/kg	91,000	ND (0.00034)	ND (0.026)	ND (0.00019)	ND (0.00021)	ND (0.00020)	ND (0.017)	ND (0.00025)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00030)	ND (0.022)	ND (0.00017)	ND (0.00019)	ND (0.00017)	ND (0.015)	ND (0.00022)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00027)	ND (0.020)	ND (0.00015)	ND (0.00016)	ND (0.00015)	ND (0.013)	ND (0.00020)
1,1,1-Trichloroethane	mg/kg	4,200	ND (0.00021)	ND (0.015)	ND (0.00011)	ND (0.00013)	ND (0.00012)	ND (0.010)	ND (0.00015)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00033)	ND (0.024)	ND (0.00018)	ND (0.00020)	ND (0.00019)	ND (0.016)	ND (0.00024)
Trichloroethene	mg/kg	20	ND (0.00030)	ND (0.022)	ND (0.00016)	ND (0.00018)	ND (0.00017)	ND (0.014)	ND (0.00022)
Trichlorofluoromethane	mg/kg	340,000	ND (0.00025)	ND (0.019)	ND (0.00014)	ND (0.00016)	ND (0.00015)	ND (0.012)	ND (0.00019)
Vinyl chloride	mg/kg	170,000	ND (0.00055)	ND (0.041)	ND (0.00031)	ND (0.00034) ND (0.00037)	ND (0.00032) ND (0.00035)	ND (0.027) ND (0.029)	ND (0.00041) ND (0.00045)
m,p-Xylene o-Xylene	mg/kg mg/kg	170,000	ND (0.00061) ND (0.00032)	ND (0.045) ND (0.024)	ND (0.00034) ND (0.00018)	ND (0.00037)	ND (0.00035)	ND (0.029) ND (0.015)	ND (0.00045)
Xylene (total)	mg/kg	170,000	ND (0.00032)	ND (0.024)	ND (0.00018)	ND (0.00020)	ND (0.00018)	ND (0.015)	ND (0.00023)
			(1.00002)	(3.02.)	, (5.000.0)	(1.00020)	, (5.000.0)	(3.0.0/	, (3.00020)
Volatile Organic Tentatively Id	entified C	Compounds							
Total TIC, Volatile	mg/kg	-	0	160.8 J (15)	0	0	0.0225 J (2)	126.9 J (10)	0.92 J (12)
Total Alkanes	mg/kg	-	0	0	0	0	0	54.9 J	0.084 J
General Chemistry									
Solids, Percent	%	_	91.2	81.6	_	_	-	84.7	85

All results in mg/kg unless otherwise noted.	ogram	mg/kg	
Estimated	Value	J	
Not Sa	mpled	NS	
Not De	tected	ND	
Not An	alyzed	NA	
Method Detection	n Limit	()	
Compound Found in	Blank	В	
Health based standard defaults to soil saturation	n limit	**	
Exceeds NJDEP Non-Residential Soil Remediation Standard Result is from 2	nd run	a b	

Table 4-1
Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey
Summary of soil Analytical Results - AOC 15b

Sample ID	NJ Non-	AOC15B-SS-1	AOC15B-SS-2	AOC15	B-SS-3	AOC15B-SS-4	AOC15B-SS-5	AOC15B-SS-6	
Sample Date	Residential Direct	10/9/2014	10/9/2014	10/1/	2014	10/1/2014	10/1/2014	10/1/2014	
Depth (ft bgs)	Contact Soil	4.5-5.0	6.5-7.0	4.0-4.5	7.0-7.5	4.0-4.5	4.0-4.5	4.0-4.5	
Extractable Petroleum Hydrocarbons									
Total EPH (mg/kg)	54,000	ND	ND	ND	ND	ND	ND	ND	
Total Petroleum Hydrocarbons (TPH)	-	NA	NA	NA	NA	NA	NA	NA	
Solids, Percent	-	93.3	94.9	94.5	89.6	93.9	91.5	80.4	

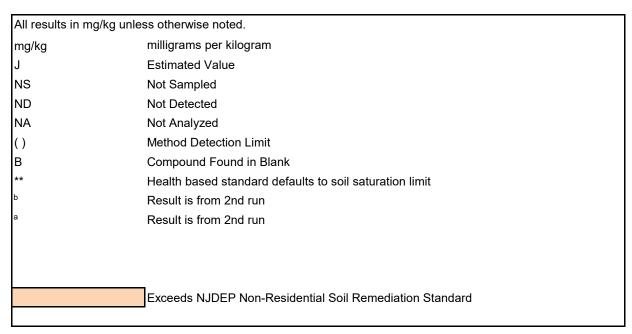
All results in mg/kg unless otherwise noted. milligrams per kilogram	mg/kg
Estimated Value	J
Not Sampled	NS
Not Detected	ND
Not Analyzed	NA
Method Detection Limit	()
Compound Found in Blank	В
Health based standard defaults to soil saturation limit	**
Exceeds NJDEP Non-Residential Soil Remediation Standard Result is from 2nd run	b
Result is from 2nd run	а

Table 4-1

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey

Summary of Soil Sample Results at AOC 15c - Former UST Area (UST 0004)

Sample ID	NJ Non-	AOC15C-SS-1	AOC15C-SS-2	AOC15C-SS-3	AOC15C-SS-4					
Sample Date	Residential	9/29/2014	9/29/2014	9/29/2014	9/29/2014					
Sample Depth	Direct	5.5-6.0	5.5-6.0 5.5-6.0		5.5-6.0					
Matrix	Contact Soil	Soil	Soil	Soil	Soil					
Extractable Petroleum Hydrocarbons										
Total EPH (mg/kg)	54,000	ND	284	138	ND					
General Chemistry	General Chemistry									
Solids, Percent	-	87.0	80.2	84.5	85.5					



Client Sample ID:		NJ Non-	TL-SS-4V (5.5- 6.0)	TL-SS-5V (6.5- 7.0)	TL-SS-6V (5.5- 6.0)	TL-SS-8VV (6.0-	TL-SS-10VV (19.5-	TL-SS-11VV (12.5-	TL-SS-12VV (12.5-	TL-SS-13V (6.5-	TL-SS-16 (5.0- 5.5)
		Residential	,	,	, i	6.5)	20.0)	13.0)	13.0)	7.0)	,
Lab Sample ID: Date Sampled:		Direct Contact	JB78813-1 10/9/2014	JB78685-3 10/8/2014	JB78545-2 10/7/2014	JB78685-2 10/8/2014	JB78545-3 10/7/2014	JB78545-4 10/7/2014	JB78685-1 10/8/2014	JB78545-1 10/7/2014	JB78813-2 10/9/2014
Sample Depth:		Soil	5.5-6.0	6.5-7.0	5.5-6.0	6.0-6.5	19.5-20.0	12.5-13.0	12.5-13.0	6.5-7.0	5.0-5.5
Matrix:			Soil								
			0011	COII	0011	0011	0011	0011	0011	0011	0011
Volatile Organic Compounds											
Acetone	mg/kg		ND	ND	0.0502	0.0314	0.0417	0.0114	0.0388	0.0288	ND
Benzene	mg/kg	5	ND	ND	0.0014	0.00034 J	0.0151	0.00026 J	ND	0.00072	ND
2-Buttanone (MEK)	mg/kg	44,000	ND	ND	0.0080 J	ND	ND	ND	ND	ND	ND
Carbon disulfide	mg/kg	110,000	ND	ND	0.0044	ND	0.0069	0.00088 J	0.0083	0.0006 J	ND
Chlorobenzene	mg/kg	7400	ND	0.0843 J	ND	ND	0.00021 J	ND	ND	ND	ND
Cyclohexane	mg/kg		ND	0.0257 J	ND	ND	0.0018 J	ND	0.00062 J	ND	ND
1,4 Dichlorobenzene Ethylbenzene	mg/kg	13 110,000	ND ND	ND 0.0161 J	ND ND	ND ND	ND 0.00029 J	ND ND	ND ND	ND 0.00021 J	ND ND
Isopropylbenzene	mg/kg mg/kg		ND ND	0.01613	ND ND	ND ND	0.00029 J	0.00058 J	0.0007 J	0.000213 ND	ND ND
Methylcyclohexane	mg/kg		ND ND	0.38	0.00036 J	0.00067 J	0.0026	ND	0.0007 J	ND	ND
Methyl Tert Butyl Ether (MTBE)	mg/kg	110	ND	ND	ND	ND	0.0018	0.00062 J	ND	ND	ND
Methylene chloride	mg/kg	97	ND ND	ND ND	ND	0.0018 J	0.0021 J	ND	0.002 J	ND	ND
Tert Butyl Alcohol (TBA)	mg/kg	11,000	ND	ND	ND	ND	0.117	0.0527	ND	ND	ND
Toluene	mg/kg	91,000	ND	ND	ND	ND	0.00076 J	ND	ND	ND	ND
Xylene (total)	mg/kg	170,000	ND	0.0210 J	0.00023 J	ND	0.00075 J	ND	ND	ND	ND
Total Volatile TICs	mg/kg		ND	21.3 J (10)	0.0526 J (5)	ND	0.0507 J (5)	0.0252 J (3)	0.506 J (15)	ND	ND
Semi-Volatile Organic Compoun	ds										
Acenaphthene	mg/kg	37,000	ND	NA NA	ND	NA NA	ND	ND	NA	ND	ND
Acenapthylene	mg/kg	300,000	ND ND	NA NA	ND	NA NA	ND	ND	NA NA	ND	ND
Anthracene Benzo(a)anthracene	mg/kg	30,000	ND ND	NA NA	ND ND	NA NA	ND ND	ND ND	NA NA	ND ND	ND ND
Benzo(a)anthracene Benzo(a)pyrene	mg/kg mg/kg	0.2	ND ND	NA NA	ND ND	NA NA	ND ND	ND ND	NA NA	ND ND	ND ND
Benzo(b)fluoranthene	mg/kg	2	ND ND	NA NA	ND ND	NA NA	ND ND	ND ND	NA NA	ND ND	ND ND
Benzo(g,h,i)perylene	mg/kg	30,000	ND	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(k)fluoranthene	mg/kg	23	ND	NA	ND	NA	ND	ND	NA	ND	ND
1,1' Biphenyl	mg/kg	34,000	ND	NA	ND	NA	ND	ND	NA	ND	ND
bis(2-Ethylhexyl)phthalate	mg/kg	140	ND	NA	0.0486 J	NA	ND	ND	NA	0.0402 J	ND
Caprolactam	mg/kg	340,000	ND	NA	ND	ND	ND	ND	ND	ND	0.0607 J
Carbazole	mg/kg	96	ND	NA	ND	NA	ND	ND	NA	ND	ND
Chrysene	mg/kg	230	ND	NA	ND	NA	ND	ND	NA	ND	ND
Dibenz(a,h)anthracene	mg/kg	0.2	ND	NA NA	ND	NA NA	ND	ND	NA	ND	ND 0.005
Dibenzofuran Diethyl phthalate	mg/kg	550,000	ND ND	NA NA	ND ND	NA NA	ND ND	ND ND	NA NA	ND ND	0.205 ND
Di-n-butyl phthalate	mg/kg mg/kg	68,000	0.0583 J	NA NA	0.0745 J	NA NA	0.0537 J	0.177	NA NA	0.0526 J	ND ND
Fluoranthene	mg/kg	24,000	ND	NA NA	ND	NA NA	0.0182 J	ND	NA NA	ND	ND
Fluorene	mg/kg	24,000	ND	NA	ND	NA	ND	ND	NA	ND	ND
Indeno(1,2,3-cd)pyrene	mg/kg	2	ND	NA	ND	NA	ND	ND	NA	ND	ND
2-Methylnaphthalene	mg/kg	2,400	ND	NA	ND	NA	ND	ND	NA	ND	ND
Phenanthrene	mg/kg	300,000	ND	NA	ND	NA	ND	ND	NA	ND	ND
Pyrene	mg/kg	18,000	ND	NA	ND	NA	0.0193 J	0.019 J	NA	ND	ND
Naphthalene	mg/kg	17	ND	NA	ND	NA	ND	ND	NA	ND	ND
Total Semi-Volatile TICs	mg/kg		0.420 J (3)	NA	4.580 J (3)	NA	1.340J (5)	4.37 J (4)	NA	5.87 J (5)	1.67 J (7)
EPH											
Total EPH		54,000	143	710	ND	ND	24.4	ND	175	ND	ND
Total EFH		54,000	143	710	ND	ND	24.4	IND	175	ND	ND
PCBs											
Total Polychlorinated biphenyl (PCBs)		1	NA								
Metal Compounds											
Aluminum	mg/kg	NA*	NA								
Antimony	mg/kg	450	NA NA								
Arsenic	mg/kg	19*	NA NA								
Barium Bendlium	mg/kg	59,000 140	NA NA								
Beryllium Cadmium	mg/kg mg/kg	78	NA NA								
Calcium	mg/kg		NA NA								
Chromium	mg/kg	-	NA NA	NA NA							
Cobalt	mg/kg	590	NA	NA	NA NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	45,000	NA								
Iron	mg/kg	-	NA								
Lead	mg/kg	800	8.3	7.3	4.3	8.0	6.3	3.3	5.2	4.2	6.2
Magnesium	mg/kg		NA								
Manganese	mg/kg	5,900	NA	NA NA	NA						
Mercury	mg/kg	65	NA NA								
Nickel Potassium	mg/kg	23,000	NA NA								
Selenium	mg/kg mg/kg	5,700	NA NA								
Silver	mg/kg	5,700	NA NA								
Sodium	mg/kg		NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
Thallium	mg/kg	79	NA	NA	NA NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	1,100	NA								
Zinc	mg/kg	110,000	NA								
All results in mg/kg unless otherwi	se noted.								milligra	ms per kilogram	mg/kg

Zinc	mg/kg 110,000 NA	NA	NA	NA	NA	NA	NA	NA	NA
A.U									
All results in mg/kg unle	ess otherwise noted.						milligra	ms per kilogram	mg/kg
								Estimated Value	J
								Not Sampled	NS
								Not Detected	ND
								Not Analyzed	NA
							Metho	d Detection Limit	()
							Compound	d Found in Blank	В
					Hea	alth based standa	ard defaults to so	il saturation limit	**
	Exceeds NJDEP Non-Residential Soil Remediat	ion Standard					Resul	t is from 2nd run	b
							Resul	t is from 2nd run	a

Table 4-1

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Sample Results - AOC 20a - Former T-1600 A/B Transformers

Client Sample ID:		NJ Non-	TFD-SS-1	TFD-SS-2	TFD-SS-3	TFD-SS-4				
Lab Sample ID:		Residential	JB98904-17	JB98904-16	JB98904-18	JB98904-19				
Date Sampled:		Direct Contact	7/9/2015	7/9/2015	7/9/2015	7/9/2015				
Matrix:		Soil	Soil	Soil	Soil	Soil				
Depth:			1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft	1.0-1.5 ft				
GC Semi-volatiles (NJDEP EPH)										
EPH (C9-C28)	mg/kg	-	ND (5.4)	ND (4.6)	20.2	ND (5.8)				
EPH (>C28-C40)	mg/kg	-	ND (5.4)	ND (4.6)	22.3	ND (5.8)				
Total EPH (C9-C40)	mg/kg	-	ND (5.4)	ND (4.6)	42.5	ND (5.8)				
GC Semi-volatiles (SW846 808	2A)									
Aroclor 1016	mg/kg	1	ND (0.014)	ND (0.011)	ND (0.012)	ND (0.013)				
Aroclor 1221	mg/kg	1	ND (0.025)	ND (0.020)	ND (0.022)	ND (0.024)				
Aroclor 1232	mg/kg	1	ND (0.014)	ND (0.011)	ND (0.012)	ND (0.013)				
Aroclor 1242	mg/kg	1	ND (0.019)	ND (0.015)	ND (0.017)	ND (0.018)				
Aroclor 1248	mg/kg	1	ND (0.013)	ND (0.010)	ND (0.011)	ND (0.012)				
Aroclor 1254	mg/kg	1	ND (0.019)	ND (0.015)	ND (0.016)	ND (0.018)				
Aroclor 1260	mg/kg	1	ND (0.018)	ND (0.014)	ND (0.015)	ND (0.017)				
Aroclor 1268	mg/kg	1	ND (0.013)	ND (0.010)	ND (0.011)	ND (0.012)				
Aroclor 1262	mg/kg	1	ND (0.012)	ND (0.0095)	ND (0.010)	ND (0.011)				
General Chemistry										
Solids, Percent	%	-	78.1	87.5	90.8	72.7				

milligrams per kilogram	mg/kg	Method Detection Limit	()			
Estimated Value	J	Compound Found in Blank	В			
Not Sampled	NS	Health based standard defaults to soil saturation limit	**			
Not Detected	ND	Result is from 2nd run	b			
Not Analyzed	NA	Result is from 2nd run				
	Exceeds N.IDEF	P Non-Residential Soil Remediation Standard				
Exceeds NJDEF Non-Residential Soil Remediation Standard						

Table 4-1 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 20b - Former 510-A/B Transformers - Fracking Tower

011 (0 1 17			TEET 00 4	TTTT 00 4	TTTT 00 4	TEET 00 0	TTTT 00 0	TEET 00 /
Client Sample ID:		NJ Non-	TFFT-SS-1	TFFT-SS-1	TFFT-SS-1	TFFT-SS-2	TFFT-SS-3	TFFT-SS-4
Lab Sample ID:		Residential	JB99093-6	JB99093-6R	JB99093-6T	JB99093-7	JB99093-8	JB99093-9
Date Sampled:		Direct Contact	7/13/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.0-1.5 ft
GC/MS Semi-volatiles (SW846 82	?70D)							
Acenaphthene	mg/kg	37000	-	ND (0.030)	-	-	-	-
Acenaphthylene	mg/kg	300000	-	ND (0.027)	-	-	-	-
Anthracene	mg/kg	30000	-	ND (0.027)	-	-	-	-
Benzo(a)anthracene	mg/kg	2	-	0.256	-	-	-	-
Benzo(a)pyrene	mg/kg	0.2	-	0.426	-	-	-	-
Benzo(b)fluoranthene	mg/kg	2	-	0.21	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	30000	-	0.338	-	-	-	-
Benzo(k)fluoranthene	mg/kg	23	-	ND (0.057)	-	-	-	-
Chrysene	mg/kg	230	-	0.641	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	0.2	-	0.142 J	-	-	-	-
Fluoranthene	mg/kg	24000	-	0.115 J	-	-	-	-
Fluorene	mg/kg	24000	-	ND (0.034)	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	2	-	0.121 J	-	-	-	-
Naphthalene	mg/kg	17	-	ND (0.027)	-	-	-	-
Phenanthrene	mg/kg	300000	-	0.181	-	-	-	-
Pyrene	mg/kg	18000	-	0.299	-	-	-	-
GC Semi-volatiles (NJDEP EPH)								
EPH (C9-C28)	mg/kg	-	5410	-	-	ND (4.6)	ND (4.4)	89.8
EPH (>C28-C40)	mg/kg	-	1370	_	-	ND (4.6)	ND (4.4)	250
Total EPH (C9-C40)	mg/kg	-	6780	_	-	ND (4.6)	ND (4.4)	340
C10-C12 Aromatics	mg/kg	_	-	_	ND (0.32)	-	-	-
C12-C16 Aromatics	mg/kg	-	-	_	ND (0.51)	-	_	-
C16-C21 Aromatics	mg/kg	-	-	-	416	-	_	-
C21-C36 Aromatics	mg/kg	-	-	_	492	-	_	-
Total Aromatics	mg/kg	-	-	_	908	-	_	-
C9-C12 Aliphatics	mg/kg	_	_	_	ND (0.30)	_	_	_
C12-C16 Aliphatics	mg/kg	-	_	-	85.5	_	_	_
C16-C21 Aliphatics	mg/kg	-	-	_	1280	-	_	_
C21-C40 Aliphatics	mg/kg	-	-	-	1040	-	_	-
Total Aliphatics	mg/kg	-	-	-	2400	-	_	-
Total EPH	mg/kg	-	-	-	3310	-	_	-
GC Semi-volatiles (SW846 808.								
A == = = = 404C	ma/ka	1	ND (0.015)			ND (0.012)	ND (0.011)	ND (0.011)
	mg/kg mg/kg	1	ND (0.015) ND (0.027)	-	-	ND (0.012) ND (0.022)	ND (0.011) ND (0.020)	ND (0.011) ND (0.021)
Aroclor 1221				-	-			
Aroclor 1232	mg/kg	1	ND (0.015)	-	-	ND (0.013)	ND (0.011)	ND (0.012) ND (0.016)
Aroclor 1242	mg/kg	1	ND (0.021)	-	-	ND (0.017)	ND (0.015)	
Aroclor 1248	mg/kg	1	ND (0.014)	-	-	ND (0.012)	ND (0.010)	ND (0.011)
Aroclor 1254	mg/kg		0.687 ND (0.019)	-	-	ND (0.017)	ND (0.015)	ND (0.016)
Aroclor 1260	mg/kg	1	` '	-	-	ND (0.016)	ND (0.014)	ND (0.015)
Aroclor 1268	mg/kg	1	ND (0.014)	-	-	ND (0.012)	ND (0.010)	ND (0.011)
Aroclor 1262	mg/kg	1	ND (0.013)	-	-	ND (0.011)	ND (0.0094)	ND (0.010)
General Chemistry								
Solids, Percent	%	-	70.3	-	-	85	90.6	91.3

All results in mg/kg unless otherwise noted. milligrams per kilogram			
Estimated Value	J		
Not Sampled	NS		
Exceeds NJDEP Non-Residential Soil Remediation Standard Not Detected	ND		
Not Analyzed	NA		
Method Detection Limit	()		
Compound Found in Blank	В		
Health based standard defaults to soil saturation limit	**		
Result is from 2nd run	a b		

Table 4-1
Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Sample Results at AOC 20c -T2606-A/B Transformers

Client Sample ID:			TF-WWT-SS-1	TF-WWT-SS-1	TF-WWT-SS-2	TF-WWT-SS-3	TF-WWT-SS-4
Lab Sample ID:		NJ Non-	JB99834-3	JB99834-3R	JB99834-4	JB99834-5	JB99834-6
Date Sampled:		Residential	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015
Matrix:		Direct Contact Soil	Soil	Soil	Soil	Soil	Soil
Depth:		COII	0-0.5 ft				
	0700)						
GC/MS Semi-volatiles (SW846 8	270D)						
Acenaphthene	mg/kg	37000	-	ND (0.024)	-	-	-
Acenaphthylene	mg/kg	300000	-	ND (0.021)	-	-	-
Anthracene	mg/kg	30000	-	ND (0.021)	-	-	-
Benzo(a)anthracene	mg/kg	2	i	ND (0.030)	·	-	-
Benzo(a)pyrene	mg/kg	0.2	-	ND (0.037)	-	-	-
Benzo(b)fluoranthene	mg/kg	2	-	ND (0.045)	-	-	-
Benzo(g,h,i)perylene	mg/kg	30000	-	0.0862 J	-	-	-
Benzo(k)fluoranthene	mg/kg	23	-	ND (0.045)	-	-	-
Chrysene	mg/kg	230	-	ND (0.031)	-	-	-
Dibenzo(a,h)anthracene	mg/kg	0.2	-	ND (0.037)	-	-	-
Fluoranthene	mg/kg	24000	-	ND (0.021)	-	-	-
Fluorene	mg/kg	24000	-	ND (0.027)	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	2	-	ND (0.055)	-	-	-
Naphthalene	mg/kg	17	-	ND (0.021)	-	-	-
Phenanthrene	mg/kg	300000	-	ND (0.021)	-	-	-
Pyrene	mg/kg	18000	-	ND (0.028)	-	-	-
GC Semi-volatiles (NJDEP EPH)						
EPH (C9-C28)	mg/kg	-	468	-	214	14.9	436
EPH (>C28-C40)	mg/kg	-	120	-	100	ND (4.1)	217
Total EPH (C9-C40)	mg/kg	-	588	-	314	14.9	652
GC Semi-volatiles (SW846 808	22 / \						
GC 3emi-volatiles (344646 808				T			T
Aroclor 1016	mg/kg	1	ND (0.011)	-	ND (0.011)	ND (0.011)	ND (0.011)
Aroclor 1221	mg/kg	1	ND (0.021)	-	ND (0.020)	ND (0.020)	ND (0.020)
Aroclor 1232	mg/kg	1	ND (0.012)	-	ND (0.011)	ND (0.011)	ND (0.011)
Aroclor 1242	mg/kg	1	ND (0.016)	-	ND (0.015)	ND (0.015)	ND (0.015)
Aroclor 1248	mg/kg	1	ND (0.011)	-	ND (0.010)	ND (0.010)	ND (0.010)
Aroclor 1254	mg/kg	1	ND (0.016)	-	ND (0.015)	ND (0.015)	0.0849
Aroclor 1260	mg/kg	1	ND (0.015)	-	ND (0.014)	ND (0.014)	ND (0.014)
Aroclor 1268	mg/kg	1	ND (0.011)	-	ND (0.010)	ND (0.010)	ND (0.010)
Aroclor 1262	mg/kg	1	ND (0.010)	-	ND (0.0095)	ND (0.0096)	ND (0.0095)
General Chemistry							
Solids, Percent	%	-	87.7	-	88.7	91.6	89.6
<u>'</u>				ı			1

All results in mg/kg unless otherwise noted. milligrams per kilogram	mg/kg
Estimated Value	J
Not Sampled	NS
Exceeds NJDEP Non-Residential Soil Remediation Standard Not Detected	ND
Not Analyzed	NA
Method Detection Limit	()
Compound Found in Blank	В
Health based standard defaults to soil saturation limit	**
Result is from 2nd run	a b

Client Sample ID:			ADFS-SB-4		
Lab Sample ID: Date Sampled:		NJ Non- Residential	JB64101-1 4/7/2014 12.0-12.5		
Sample Depth:		Direct Contact Soil			
Matrix:			Soil		
Volatile Organic Compound	ds				
	mg/k		ND		
Acetone Benzene	mg/k	5	0.0472 J		
2-Butanone	mg/k	44000	ND		
Carbon Disulfide	mg/k	110000	ND		
Chlorobenzene	mg/k	7400	ND		
Cyclohexane 1,2 Dichlorbenzene	mg/k	59000	0.180 J ND		
1,4 Dichlorobenzene	mg/k mg/k	13	ND ND		
Ethylbenzene	mg/k	110000	0.226		
Isopropylbenzene	mg/k		2.02		
Methyl acetate	mg/k	-	ND		
Methylcyclohexane	mg/k	-	0.713		
Methyl Tertiary Butyl Ether Methylene chloride	mg/k mg/k	320 97	ND ND		
tertiary Butyl alcohol (TBA)	mg/k	11000	ND ND		
Toluene	mg/k	91000	ND		
Total Xylene	mg/k	170000	0.281		
Total Volatile TICs	mg/k	-	61.7 (11) J		
Acenaphthene	mg/k	37000	ND ND		
Acenaphthylene Anthracene	mg/k mg/k	300000 30000	ND 0.129 J		
Anthracene Benzo(a)anthracene	mg/k mg/k	2	0.129 J 0.0873 J		
Benzo(a)pyrene	mg/k	0.2	ND		
Benzo(b)fluoranthene	mg/k	2	ND		
Benzo(g,h,i)perylene	mg/k	30000	ND		
Benzo(k)fluoranthene	mg/k	23	ND		
1,1'-Biphenyl Carbazole	mg/k mg/k	34000 96	ND ND		
Chrysene	mg/k	230	0.377		
Dibenz(a,h)anthracene	mg/k	0.2	ND		
Dibenzofuran	mg/k	-	ND		
Diethyl phthalate	mg/k	550000	ND		
Di-n-butyl phthalate	mg/k	68000	ND ND		
Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate	mg/k	27000 140	ND ND		
Fluoranthene	mg/k mg/k	24000	0.169 J		
Fluorene	mg/k	24000	0.429		
Indeno (1,2,3-cd) pyrene	mg/k	2	ND		
2-Methylnaphthalene	mg/k	2400	3.84		
Naphthalene	mg/k	17	ND		
N-Nitrosodiphenylamine Phenanthrene	mg/k mg/k	390 300000	ND 1.45		
Pyrene	mg/k	18000	0.368		
Total Semi-Volatile TICs	mg/k	-	173.4 (20) J		
Metals					
Aluminum	mg/k	450	5,450		
Antimony	mg/k	450 19^	<2.2 7.0		
Arsenic Barium	mg/k mg/k	19^ 59000	7.0 28.2		
Beryllium	mg/k	140	0.53		
Cadmium	mg/k	78	<0.56		
Calcium	mg/k	-	4,200		
Chromium	mg/k	-	26.7		
Copper	mg/k	590 45000	<5.6 28.1		
Copper Iron	mg/k mg/k	45000	28.1 35,700		
Lead	mg/k	800	19.1		
Magnesium	mg/k	-	2,620		
Manganese	mg/k	5900	205		
Mercury	mg/k	65	0.049		
Nickel Potossium	mg/k mg/k	23000	13.7 <1,100		
Potassium Selenium	mg/k mg/k	5700	<1,100 <2.2		
Silver	mg/k	5700	1.5		
Sodium	mg/k	-	<1,100		
Thallium	mg/k	79	<1.1		
Vanadium	mg/k	1100	33.6		
Metals					
	mc/k	110000	93.9		
Zinc	mg/k	110000	93.9		
General Chemistry					
			40.0		
Ammonia	mg/k	-	16.0		

All results in mg/kg unle	ess otherwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Benzene mg 2-Butanone mm Carbon Disulfide mm Chlorobenzene mg Cyclohexane mg 1,2 Dichlorbenzene mg 1,2 Dichlorbenzene mg Ethylbenzene mg Isopropylbenzene mg Isopropylbenzene mg Methyl acetate mg Methyl Terliary Butyl Ether mg Methyleroliohexane mg	g/kg g/kg g/kg g/kg g/kg g/kg g/kg g/kg	- 5 44000 110000 7400 13 110000	JB64101-2	JB64101-2 4/8/2014 3.0-3.5 Soil 0.0114 0.0047 ND 0.00092 J 0.00081 J	JB64101-3 4/8/2014 9.0-9.5 Soil 0.0095 J 0.00066 J ND
Sample Depth: Matrix: Volatile Organic Compounds Acetone mg Benzene mg 2-Butanone mg Carbon Disulfide mg Cyclohexane mg 1,2 Dichlorbenzene mg 1,2 Dichlorbenzene mg Ethylbenzene mg Habilitation mg Ethylbenzene mg Methyl acetate mg Methyl Tertiary Butyl Ether mg Methyl Tertiary Butyl Ether mg Methyl Tertiary Butyl Ether mg Methylene chloride mg tertiary Butyl alcohol (TBA) mg	g/kg g/kg g/kg g/kg g/kg g/kg g/kg g/kg	44000 110000 7400 - 59000 13	ND N	3.0-3.5 Soil 0.0114 0.0047 ND 0.00092 J 0.00081 J	9.0-9.5 Soil 0.0095 J 0.00066 J ND
Matrix: Volatile Organic Compounds Acetone mg Benzene mm Carbon Disulfide mg Chlorobenzene mm 1,2 Dichlorobenzene mg 1,4 Dichlorobenzene mg Methylacetate mg Methylacetate mg Methylacetate mg Methylacetate mg Methylerochoevane mg Methylero	g/kg g/kg g/kg g/kg g/kg g/kg g/kg g/kg	44000 110000 7400 - 59000 13	ND N	0.0114 0.0047 ND 0.00092 J 0.00081 J	0.0095 J 0.00066 J ND
Volatile Organic Compounds Acetone mg Benzene mg 2-Butanone mg Carbon Disulfide mg Chlorobenzene mg 1,2 Dichlorobenzene mg 1,2 Dichlorobenzene mg 1,2 Dichlorobenzene mg Methyl acetate mg Methyl acetate mg Methyl Tertiary Butyl Ether mg Methylero chloride mg	g/kg g/kg g/kg g/kg g/kg g/kg g/kg g/kg	44000 110000 7400 - 59000 13	ND ND ND ND	0.0047 ND 0.00092 J 0.00081 J	0.00066 J ND
Acetone mg Benzene mg 2-Butanone mg Carbon Disulfide mg Chlorobenzene mg 1,2 Dichlorobenzene mg 1,2 Dichlorobenzene mg 1,2 Dichlorobenzene mg Ethylbenzene mg Isopropylbenzene mg Methyl acetate mg Methyl acetate mg Methyl Tertiary Butyl Ether mg Methylere chloride mg Methylere chloride	g/kg g/kg g/kg g/kg g/kg g/kg g/kg g/kg	44000 110000 7400 - 59000 13	ND ND ND ND	0.0047 ND 0.00092 J 0.00081 J	0.00066 J ND
Benzene mg 2-Butanone mm (Carbon Disulfide mm (Chlorobenzene mg (Cyclohexane mg 1,2 Dichlorobenzene mg 1,2 Dichlorobenzene mg 1,2 Dichlorobenzene mg Ethylbenzene mg Isopropylbenzene mg Methyl acetate mg Methyl acetate mg Methyl cholexane mg Methyleylohexane mg	g/kg g/kg g/kg g/kg g/kg g/kg g/kg g/kg	44000 110000 7400 - 59000 13	ND ND ND ND	0.0047 ND 0.00092 J 0.00081 J	0.00066 J ND
2-Butanone mg Carbon Disulfide mg Carbon Disulfide mg Cyclohexane mg 1,2 Dichlorbenzene mg 1,4 Dichlorbenzene mg Ethylbenzene mg Isopropylbenzene mg Methyl cestate mg Methyl Tertiary Butyl Ether mg Methyl Feriary Butyl Ether mg Methylepe chloride mg tertiary Butyl alcohol (TBA) mg	g/kg g/kg g/kg g/kg g/kg g/kg g/kg	44000 110000 7400 - 59000 13	ND ND ND ND	ND 0.00092 J 0.00081 J	ND
Carbon Disulfide mg Chlorobenzene mg Cydohexane mg 1,2 Dichlorobenzene mg 1,4 Dichlorobenzene mg 1,4 Dichlorobenzene mg Ethylbenzene mg Isopropylbenzene mg Methyl acetate mg Methyl Tertiary Butyl Ether mg Methylene chloride tertiary Butyl alcohol (TBA) mg	g/kg g/kg g/kg g/kg g/kg g/kg g/kg	110000 7400 - 59000 13	ND ND ND	0.00092 J 0.00081 J	
Cyclohexane mg 1,2 Dichlorbenzene mg 1,2 Dichlorbenzene mg Ethylbenzene mg Ethylbenzene mg Isopropylbenzene mg Methyl cestate mg Methyl Tertiary Butyl Ether mg Methylene chloride mg tertiary Butyl alcohol (TBA) mg	g/kg g/kg g/kg g/kg g/kg g/kg	59000 13	ND		0.0024 J
1.2 Dichlorbenzene mg 1.4 Dichlorobenzene mm 1.4 Dichlorobenzene mm Ethylbenzene mg Isopropylbenzene mg Methyl acetate mg Methyl cyclohexane mg Methyl Tertiary Butyl Ether mg Methylero chloride tertiary Butyl alachol (TBA) mg	g/kg g/kg g/kg g/kg g/kg	59000 13			ND
1.4 Dichlorobenzene mç Ethylbenzene mç Isopropylbenzene mç Methyl acetate mç Methyl cyclohexane mç Methyl Tertiary Butyl Ether mç Methyler chloride mç Itertiary Butyl alcohol (TBA)	g/kg g/kg g/kg g/kg	13		0.0058 ND	0.00071 J 0.00051 J
Ethylbenzene mg Isopropylbenzene mg Methyl acetate mg Methylcyclohexane mg Methyl Tertiary Butyl Ether Methylene chloride mg tertiary Butyl alcohol (TBA) mg	g/kg g/kg g/kg		ND	ND	ND
Methyl acetate mg Methylcyclohexane mg Methyl Tertiary Butyl Ether mg Methylene chloride mg tertiary Butyl alcohol (TBA) mg	g/kg	110000	0.0251 J	0.006	0.00073 J
Methylcyclohexane mg Methyl Tertiary Butyl Ether mg Methylene chloride mg tertiary Butyl alcohol (TBA) mg		-	ND	0.0119 J	0.0017 J
Methyl Tertiary Butyl Ether mg Methylene chloride mg tertiary Butyl alcohol (TBA) mg		-	ND ND	ND 0.0233	ND 0.0045 J
Methylene chloride mg tertiary Butyl alcohol (TBA) mg	g/kg	320	ND	0.0233 ND	0.0045 J ND
	g/kg	97	ND	ND	ND
	g/kg	11000	ND	ND	ND
	g/kg	91000	ND 0.0309 I	0.00046 J	ND
	g/kg g/kg	170000	0.0308 J 17.8 (4) J	0.00073 J 1.1 (11) J	0.00075 J 0.265 (12) J
			(=) 0	(11/0	(12)0
Semi-Volatile Organic Compound					
	g/kg	37000	2.50	1.18 ND	0.245
	g/kg g/kg	300000 30000	0.0514 0.372	ND 1.57	ND 0.329
	g/kg	2	0.252	7.270	0.929
	g/kg	0.2	0.0868 J	3.7	0.619
	g/kg	2	0.125	1.55	0.265
	g/kg	30000	0.0243 J 0.0481	1.1 0.254	0.204 ND
	g/kg g/kg	23 34000	0.296	0.254 ND	ND ND
	g/kg	96	0.512	ND	ND
	g/kg	230	0.222	12.9	1.81
	g/kg	0.2	ND 1.40	0.587 0.944	0.0911 J 0.0897 J
	g/kg g/kg	550000	ND	ND	0.0697 3 ND
	g/kg	68000	ND	ND	ND
	g/kg	27000	ND	ND	ND
	g/kg	140	ND 4.40	ND 2.19	ND 0.467
	g/kg g/kg	24000 24000	1.49	2.19	0.467 ND
	g/kg	2	0.0226 J	0.436	ND
	g/kg	2400	0.538	2.65	ND
	g/kg	17	3.58	3.69	ND
	g/kg g/kg	390 300000	ND 2.94	ND 14.6	ND 0.539
	g/kg	18000	1.16	10.0	1.66
	g/kg	-	5.35 (19) J	219.4 (21) J	60.4 (24) J
Metals					
Aluminum Imc	g/kg	-	35,200	20,200	23,100
Antimony	g/kg	450	<7.0	<4.7	60.5a
	g/kg	19^	54.9	40.5	36.5a
	g/kg	59000 140	680 2.6	331 1.2	353 1.7
	g/kg g/kg	78	<1.7	<1.2	1.7 1.2a
	g/kg	-	16,600	9,360	8,820
Chromium mg	g/kg	-	87.7	69.7	73.9a
	g/kg	590	13.3 34.4	17.4 56.9	9.5 302a
	g/kg g/kg	45000	102,000	44,000	53,200
	g/kg	800	20.9	84.3	1,070a
	g/kg	-	4,340	1,930	2,260
	g/kg	5900	193 0.052	190 0.041	123 <0.035
	g/kg g/kg	65 23000	51.8	41.1	39.4
	g/kg	-	3,220	1,360	2,350
Selenium mg	g/kg	5700	<7.0	<4.7	<4.3a
	g/kg	5700	<1.7	<1.2	<1.1a
	g/kg g/kg	79	1,240 <3.5	1,560 <2.3	<1,100 <2.1a
	g/kg	1100	182	132	175
	g/kg	110000	52.6	123	108
Miscellaneous					
Ammonia	\equiv		13.2	25.2	16.9
Solids (%)			81.8	84.8	89.6

All results in mg/kg unless	s otherwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Client Sample ID:		NJ Non-	WWTS-SB-1 (12.5-13.0)	WWTS-SB-2 (3.0-3.5)	WWTS-SB-3 (4.0-4.5)	WWTS-SB-4 (8.5-9.0)	WWTS-SB-5 (8.5-9.0)
Lab Sample ID:		Residential Direct Contact	JB64101-5	JB64101-6	JB64334-1	JB64334-2	JB64334-3
Date Sampled:		Soil	4/8/2014	4/8/2014	4/9/2014	4/9/2014	4/9/2014
Sample Depth:		3011	(12.5-13.0)	(3.0-3.5)	(4.0-4.5)	(8.5-9.0)	(8.5-9.0)
Matrix:			Soil	Soil	Soil	Soil	Soil
Volatile Organic Compound	s						
Acetone	mg/kg	-	ND	ND	0.0233	ND	0.0316
Benzene	mg/kg	5	0.0211 J	ND	ND	ND	ND
2-Butanone	mg/kg	44000	ND	ND	ND	ND	0.0065 J
Carbon Disulfide	mg/kg	110000	ND	ND	0.0014 J	0.0345 J	0.0022 J
Chlorobenzene	mg/kg	7400	ND ND	ND 0.0475 I	0.00022 J	0.056 J	0.00069 J
Cyclohexane 1.2 Dichlorbenzene	mg/kg	59000	0.0379 J ND	0.0475 J ND	0.00060 J ND	0.0174 J 0.0637 J	ND 0.0008 J
1,4 Dichlorobenzene	mg/kg mg/kg	13	ND ND	ND ND	ND ND	0.0637 J ND	0.0006 J
Ethylbenzene	mg/kg	110000	0.176	0.0567 J	ND ND	0.0353	ND ND
Isopropylbenzene	mg/kg	-	0.401	0.162 J	0.00027 J	1.26	0.0014 J
Methyl acetate	mg/kg	-	ND	ND	ND	ND	ND
Methylcyclohexane	mg/kg	-	0.126	0.275 J	ND	0.098 J	0.00067 J
Methyl Tertiary Butyl Ether	mg/kg	320	ND	ND	0.0015	ND	0.0037
Methylene chloride	mg/kg	97	ND	ND	ND	ND	ND
tertiary Butyl alcohol (TBA)	mg/kg	11000	ND	ND	ND	ND	0.0165 J
Toluene Total Yulana	mg/kg	91000	0.015 J	ND 0.102	ND ND	ND 0.017 I	ND
Total Xylene Total Volatile TICs	mg/kg mg/kg	170000	0.200 15.46 (15) J	0.102 10.35 (15) J	ND 0.1026 (10) J	0.017 J 43.200 (15) J	ND ND
		-	15.40 (15) J	10.33 (13) J	0.1020 (10) J	+3.200 (13) J	ואט
Semi-Volatile Organic Comp	ounds						
Acenaphthene	mg/kg	37000	1.67	0.714	0.612	2.5	0.365
Acenaphthylene	mg/kg	300000	ND	ND	ND	ND	ND
Anthracene	mg/kg	30000	1.03	0.355	0.294	2.13	0.215
Benzo(a)anthracene	mg/kg	2	0.791	0.307	0.255	1.57	0.308
Benzo(a)pyrene	mg/kg	0.2	0.556	0.207	0.173	1.08	0.243
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg	30000	0.362	0.131 0.0747	0.136 0.0761	0.616 0.378	0.112
Benzo(g,n,n)perylene Benzo(k)fluoranthene	mg/kg mg/kg	23	0.0754	0.0283 J	0.0761	0.378	0.0267 J
1,1'-Biphenyl	mg/kg	34000	0.166	ND	ND	ND	ND
Carbazole	mg/kg	96	0.124	0.0522 J	ND	ND	ND
Chrysene	mg/kg	230	0.960	0.410	0.348	1.86	0.579
Dibenz(a,h)anthracene	mg/kg	0.2	0.0609	0.0252 J	0.0280 J	0.140	0.0513
Dibenzofuran	mg/kg	-	0.698	0.241	0.159	0.325	ND
Diethyl phthalate	mg/kg	550000	ND	ND	ND	ND	ND
Di-n-butyl phthalate	mg/kg	68000	ND	ND	ND	ND	ND
Di-n-octyl phthalate	mg/kg	27000	ND	ND 0.004	ND 0.070	ND 0.0474 I	ND
bis(2-Ethylhexyl)phthalate	mg/kg	140 24000	0.0553 J	0.204 0.481	0.078	0.0471 J	0.399
Fluoranthene Fluorene	mg/kg mg/kg	24000	1.19 1.74	0.461 ND	0.590 0.304	2.18 ND	0.203 0.469
Indeno (1,2,3-cd) pyrene	mg/kg	24000	0.120	0.0404	0.0456	0.220	0.409
2-Methylnaphthalene	mg/kg	2400	2.92	0.934	ND	ND	ND
Naphthalene	mg/kg	17	1.67	0.985	ND	0.067	ND
N-Nitrosodiphenylamine	mg/kg	390	ND	ND	ND	ND	ND
Phenanthrene	mg/kg	300000	5.910 ^b	1.90	0.168	0.391	0.174
Pyrene	mg/kg	18000	2.13	0.902	1.030	5.240 ^b	0.695
Total Semi-Volatile TICs	mg/kg	-	22.860 (21) J	11.490 (16) J	13.620 (14) J	28.410 (25) J	31.210 (20) J
Metals							
Aluminum	ma/lea		27,800	17,500	8,360	9,580	31,600
	mg/kg	450	<5.1 ^a	<2.2	<2.3	<2.3	9.7ª
Antimony Arsenic	mg/kg mg/kg	450 19^	<5.1° 57.7	25.0	15.7	6.1	73.1 ^a
Barium	mg/kg	59000	554	23.0	119	60.3	622
Beryllium	mg/kg	140	2.3	1.3	0.75	0.53	3.1
Cadmium	mg/kg	78	<1.3ª	<0.56	<0.58	<0.57	<1.3ª
Calcium	mg/kg	-	9,920	4,460	2,460	1,650	12,000
Chromium	mg/kg	-	53.5ª	34.6	29.5	11.3	76.9 ^a
Cobalt	mg/kg	590	11.6	8.7	<5.8	<5.7	13.8
Copper	mg/kg	45000	37.7ª	23.5	20.7	10.6	70.9 ^a
Iron	mg/kg	-	65,600	39,100	20,800	13,200	84,200
Lead	mg/kg	800	70.5ª	36.0	44.0	16.4	506ª
Magnesium	mg/kg	-	3,950	1,720	1,160	940	4,690
Manganese	mg/kg	5900	135ª	115	67.8	60.5	195ª
Mercury	mg/kg	65	0.11	0.048	0.14	<0.037	0.14
Nickel	mg/kg	23000	41.5	22.7	19.6	9.2	72.2ª
Potassium	mg/kg		2,390	1,180	<1,200	<1,100	2,830
Selenium	mg/kg	5700	<5.1	3.5	<2.3	<2.3	<5.1 ^a
Silver	mg/kg	5700	<1.3ª	2.0	<0.58	<0.57	<1.3ª
Sodium	mg/kg	-	1,610	<1,100	<1,200	<1,100	1,810
Thallium	mg/kg	79	<2.6ª	<1.1	<1.2	<1.1	<2.5ª
Vanadium	mg/kg	1100	180	100	84.1	35.2	280ª
Zinc	mg/kg	110000	65.1	37.1	34.2	16.3	96.3ª
Miscellaneous							
Miscellaneous Ammonia	_	-	35.7	23.4	20.9	6.0	21.0

Il results in mg/kg unless otherwise noted.	milligrams per kilogram	mg/kg
	Estimated Value	J
Exceeds NJDEP Non-Residential Soil Remediation Standard	Not Sampled	NS
	Not Detected	ND
	Not Analyzed	NA
	Method Detection Limit	()
C	ompound Found in Blank	В
Health based standard defa	ults to soil saturation limit	**
	Result is from 2nd run	a b

Client Sample ID:			ABSP-SS-1	ABSP-SS-1	ABSP-SS-1	ABSP-SS-1	ABSP-SS-2
Lab Sample ID:		NJ Non- Residential	JB99834-1	JB99834-1R	JB99834-1U	JB99834-1UR	JB99834-2
Date Sampled:		Direct Contact	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015
Sample Depth:		Soil	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft
Matrix:			Soil	Soil	Soil	Soil	Soil
			 	3 0	3 0		
GC/MS Volatiles (SW846 82600	;)						
Acetone	mg/kg	NA	-	0.0176	-	-	-
Benzene	mg/kg	5	-	0.00046 J	-	-	-
Bromochloromethane	mg/kg	-	-	ND (0.00040)	-	-	-
Bromodichloromethane	mg/kg	3		ND (0.00020)	-	-	-
Bromoform	mg/kg	280	-	ND (0.00030)	-	-	-
Bromomethane	mg/kg	59	-	ND (0.00047)	-	-	-
2-Butanone (MEK)	mg/kg	44000	-	ND (0.0025)	-	-	-
Carbon disulfide	mg/kg	110000	-	0.00067 J	-	-	-
Carbon tetrachloride	mg/kg	2	-	ND (0.00030)	-	-	-
Chlorobenzene	mg/kg	7400 1100	-	ND (0.00020) ND (0.00062)	-	-	-
Chloroethane	mg/kg	-	-	ND (0.00062)	-	-	-
2-Chloroethyl vinyl ether Chloroform	mg/kg mg/kg	2	-	ND (0.00019)	-	-	-
Chloromethane	mg/kg	12	-	ND (0.00013)	-	-	-
Cyclohexane	mg/kg	-	-	ND (0.00041)	-	-	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	-	ND (0.00071)	-	-	-
Dibromochloromethane	mg/kg	8	-	ND (0.00076)	-	-	-
1,2-Dibromoethane	mg/kg	0.04	-	ND (0.00017)	-	-	
1,2-Dichlorobenzene	mg/kg	59000	-	ND (0.00016)	-	-	-
1,3-Dichlorobenzene	mg/kg	59000	-	ND (0.00020)	-	-	-
1,4-Dichlorobenzene	mg/kg	13	-	ND (0.00029)	-	-	-
Dichlorodifluoromethane	mg/kg	230000	-	ND (0.00046)	-	-	-
1,1-Dichloroethane	mg/kg	24	-	ND (0.00018)	-	•	-
1,2-Dichloroethane	mg/kg	3	-	ND (0.00017)	-	-	-
1,1-Dichloroethene	mg/kg	150	-	ND (0.00076)	-	-	-
cis-1,2-Dichloroethene	mg/kg	560	-	ND (0.0010)	-	-	-
trans-1,2-Dichloroethene	mg/kg	720	-	ND (0.00076)	-	-	-
1,2-Dichloropropane	mg/kg	5	-	ND (0.00031)	-	-	-
cis-1,3-Dichloropropene	mg/kg	7	-	ND (0.00015)	-	-	-
trans-1,3-Dichloropropene	mg/kg	7 110000	-	ND (0.00023) ND (0.00021)	-	-	-
Ethylbenzene	mg/kg mg/kg	-	-	ND (0.00021)	-		-
Freon 113 2-Hexanone	mg/kg	-		ND (0.00037)			_
Isopropylbenzene	mg/kg	_	_	ND (0.00014)	_	_	_
Methyl Acetate	mg/kg	NA	-	ND (0.0011)	-	-	-
Methylcyclohexane	mg/kg	-	-	ND (0.00029)	-	-	-
Methyl Tert Butyl Ether	mg/kg	320	-	ND (0.00020)	-	-	
4-Methyl-2-pentanone(MIBK)	mg/kg	-	-	ND (0.00059)	-	-	-
Methylene chloride	mg/kg	97	-	ND (0.0013)	-	-	-
Styrene	mg/kg	260	-	ND (0.00023)	-	-	-
Tert Butyl Alcohol	mg/kg	11000	-	ND (0.0034)	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	3	-	ND (0.00022)	-	•	-
Tetrachloroethene	mg/kg	5	-	ND (0.00039)	-	-	-
Toluene	mg/kg	91000	-	0.0024	-	-	-
1,2,3-Trichlorobenzene	mg/kg	-	-	ND (0.00023)	-	-	-
1,2,4-Trichlorobenzene	mg/kg	820	-	ND (0.00022)	-	-	-
1,1,1-Trichloroethane	mg/kg	4200	-	ND (0.00019)	-	-	-
1,1,2-Trichloroethane	mg/kg	6	-	ND (0.00019)	-	-	-
Trichloroethene	mg/kg	20 340000	-	ND (0.00019) ND (0.00032)	-	-	-
Trichlorofluoromethane	mg/kg	340000	-	ND (0.00032) ND (0.00025)	-	-	-
Vinyl chloride	mg/kg mg/kg	170000	-	ND (0.00025)	-	-	-
m,p-Xylene	mg/kg	170000	-	ND (0.00045)	-	-	-
o-Xylene Yylene (total)	mg/kg	170000	-	ND (0.00035)	-	-	
Xylene (total)	19/119			(0.00000)			
GC/MS Volatile TIC							
Total TIC, Volatile	mg/kg	-	-	0.0067 J	-	-	-
Total Alkanes	mg/kg	-	-	0	-	-	-
·				•			

Client Sample ID:		NJ Non-	ABSP-SS-1	ABSP-SS-1	ABSP-SS-1	ABSP-SS-1	ABSP-SS-2
Lab Sample ID:		Residential	JB99834-1	JB99834-1R	JB99834-1U	JB99834-1UR	JB99834-2
Date Sampled:		Direct Contact	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015
Sample Depth:		Soil	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft
Matrix:			Soil	Soil	Soil	Soil	Soil
GC/MS Semi-volatiles (SW846 8	3270D)						
Acenaphthene	mg/kg	37000		0.222		_	
Acenaphthylene	mg/kg	300000	-	ND (0.042)	-	-	-
2-Chlorophenol	mg/kg	2200	-	ND (0.085)	-		-
Anthracene	mg/kg	30000	-	0.411	-	-	-
4-Chloro-3-methyl phenol Benzo(a)anthracene	mg/kg	2	-	ND (0.21)	-	-	-
Benzo(a)anthracene Benzo(a)pyrene	mg/kg mg/kg	0.2	-	0.19 0.0942	-	-	-
2,4-Dichlorophenol	mg/kg	2100	-	ND (0.21)	-	-	-
Benzo(b)fluoranthene	mg/kg	2	-	0.112	-	-	-
2,4-Dimethylphenol	mg/kg	14000	-	ND (0.21)	-	-	-
Benzo(g,h,i)perylene	mg/kg	30000 1400	-	0.0862 ND (0.21)	-	-	-
2,4-Dinitrophenol Benzo(k)fluoranthene	mg/kg mg/kg	23	-	ND (0.21) 0.0346 J		-	-
Chrysene	mg/kg	230	-	0.211	-	-	-
4,6-Dinitro-o-cresol	mg/kg	68	-	ND (0.21)	-	-	-
Dibenzo(a,h)anthracene	mg/kg	0.2	-	ND (0.042)	-	-	-
Fluoranthene 2-Methylphenol	mg/kg mg/kg	24000 3400	-	0.894 ND (0.085)	-	-	-
Fluorene	mg/kg	24000	-	0.578		-	-
3&4-Methylphenol	mg/kg	-	-	ND (0.085)	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	2	-	0.0576	-	-	-
2-Nitrophenol	mg/kg	-	-	ND (0.21)	-	-	-
4-Nitrophenol Naphthalene	mg/kg mg/kg	- 17	-	ND (0.42) 11.3	-	-	-
Phenanthrene	mg/kg	300000	-	1.77			-
Pentachlorophenol	mg/kg	10	-	ND (0.21)	-	-	-
Phenol	mg/kg	210000	-	ND (0.085)	-	-	-
Pyrene	mg/kg	18000	-	0.585	-	-	-
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	mg/kg mg/kg	68000	-	ND (0.21) ND (0.21)	-	-	-
2,4,6-Trichlorophenol	mg/kg	74	-	ND (0.21)	-	-	-
Acetophenone	mg/kg	5	-	ND (0.21)	-		-
Atrazine	mg/kg	2400	-	ND (0.085)	-	-	-
4-Bromophenyl phenyl ether	mg/kg	- 44000	-	ND (0.085)	-	-	-
Butyl benzyl phthalate 1,1'-Biphenyl	mg/kg mg/kg	14000 34000	-	ND (0.085) ND (0.085)	-	-	-
Benzaldehyde	mg/kg	68000	-	ND (0.21)	-	-	-
2-Chloronaphthalene	mg/kg	-	-	ND (0.085)	-	-	-
4-Chloroaniline	mg/kg	-	-	ND (0.21)	-	-	-
Carbazole Caprolactam	mg/kg mg/kg	96 340000	-	0.146 ND (0.085)	-	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	-	ND (0.085)	-	-	-
bis(2-Chloroethyl)ether	mg/kg	2	-	ND (0.085)	-	-	-
bis(2-Chloroisopropyl)ether	mg/kg	67	-	ND (0.085)	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	ND (0.085)	-	-	-
2,4-Dinitrotoluene 2,6-Dinitrotoluene	mg/kg mg/kg	3	-	ND (0.042) ND (0.042)	-	-	-
3,3'-Dichlorobenzidine	mg/kg	4	-	ND (0.085)	-	-	-
1,4-Dioxane	mg/kg	-		ND (0.042)	-	-	
Dibenzofuran	mg/kg	-	-	ND (0.085)	-	-	-
Di-n-butyl phthalate Di-n-octyl phthalate	mg/kg	68000 27000	-	0.109 ND (0.085)	-	-	-
Diethyl phthalate	mg/kg mg/kg	550000	-	ND (0.085)	-	-	-
Dimethyl phthalate	mg/kg	-		ND (0.085)	-	-	
bis(2-Ethylhexyl)phthalate	mg/kg	140	-	0.183	-	-	-
Hexachlorobenzene	mg/kg	1	-	ND (0.085)	-	-	-
Hexachlorobutadiene Hexachlorocyclopentadiene	mg/kg mg/kg	25 110	-	ND (0.042) ND (0.42)	-	-	-
Hexachloroethane	mg/kg	140	-	ND (0.42)	-	-	-
Isophorone	mg/kg	2000	-	ND (0.085)	-	-	-
2-Methylnaphthalene	mg/kg	2400	-	24.4	-	-	-
2-Nitroaniline	mg/kg	23000	-	ND (0.21)	-	-	-
3-Nitroaniline 4-Nitroaniline	mg/kg mg/kg	-	-	ND (0.21) ND (0.21)	-	-	-
Nitrobenzene	mg/kg	340	-	ND (0.21)	-	-	-
N-Nitroso-di-n-propylamine	mg/kg	0.3	-	ND (0.085)	-	-	-
N-Nitrosodiphenylamine	mg/kg	390	-	ND (0.21)	-	-	-
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	ND (0.21)	-	-	-

Client Sample ID:		NJ Non-	ABSP-SS-1	ABSP-SS-1	ABSP-SS-1	ABSP-SS-1	ABSP-SS-2
Lab Sample ID:		Residential	JB99834-1	JB99834-1R	JB99834-1U	JB99834-1UR	JB99834-2
Date Sampled:		Direct Contact Soil	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015
Sample Depth:		3011	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft	5.5-6.0 ft
Matrix:			Soil	Soil	Soil	Soil	Soil
GC/MS Semi-volatile TIC							
Total TIC, Semi-Volatile	mg/kg	-	-	39.7 J	-	-	-
Total Alkanes	mg/kg	-	-	14.8 J	-	-	-
CC Comi volotilos (NUDED ED	111	<u> </u>					
GC Semi-volatiles (NJDEP EP	п)						
EPH (C9-C28)	mg/kg	-	28.8	1	-	-	28.2
EPH (>C28-C40)	mg/kg	-	39.4	-	-	-	21.7
Total EPH (C9-C40)	mg/kg	-	68.2	-	-	-	49.9
GC Semi-volatiles (SW846 80)82A)						
Aroclor 1016	mg/kg	1	-	ND (0.014)	-	_	-
Aroclor 1221	mg/kg	1	-	ND (0.025)	-	-	-
Aroclor 1232	mg/kg	1	-	ND (0.014)	-	-	-
Aroclor 1242	mg/kg	1	-	ND (0.019)	_	-	-
Aroclor 1248	mg/kg	1	-	ND (0.013)	-	-	-
Aroclor 1254	mg/kg	1	-	0.0789	-	-	-
Aroclor 1260	mg/kg	1	-	ND (0.018)	-	-	-
Aroclor 1268	mg/kg	1	-	ND (0.013)	-	-	-
Aroclor 1262	mg/kg	1	-	ND (0.012)	-	-	-
Metals Analysis							
	malka	NA		5220	l	_	
Aluminum	mg/kg mg/kg	450		<2.5			-
Antimony Arsenic	mg/kg	19	_	7.4	_	_	_
Barium	mg/kg	59000	_	41.4	_	_	_
Beryllium	mg/kg	140	-	0.66	-	-	_
Cadmium	mg/kg	78	-	<0.64	-	-	-
Calcium	mg/kg	-	-	1010	-	-	-
Chromium	mg/kg	-	-	21.8	-	-	-
Chromium, Hexavalent	mg/kg	-	-	-	ND (0.52)	ND (0.52)	-
Cobalt	mg/kg	590	-	<6.4	-	-	-
Copper	mg/kg	45000	-	41.6	-	-	-
Iron	mg/kg	-	-	19600	-	-	-
Lead	mg/kg	800	-	35.4	-	-	-
Magnesium	mg/kg	-	-	1530	-	-	-
Manganese	mg/kg	5900	-	114	-	•	-
Mercury	mg/kg	65	-	0.032	-	-	-
Nickel	mg/kg	23000	-	17	-	-	-
Potassium	mg/kg	-	-	<1300	-	-	-
Selenium	mg/kg	5700	-	<2.5	-	-	-
Silver	mg/kg	5700	-	<0.64	-	-	-
Sodium	mg/kg	-	-	<1300	-	-	-
Thallium	mg/kg	79	-	<1.3	-	-	-
Vanadium	mg/kg	1100	-	32.6	-	-	-
Zinc	mg/kg	110000	-	121	-	-	-
General Chemistry							
Solids, Percent	%	-	76.4	-	-	-	75.5
Iron, Ferrous	%	-	-	-	-	1.2 ^b	-
Redox Potential Vs H2	mv	-	-	-	212 ^c	-	-
Sulfide Screen		-	-		-	NEGATIVE ^d	-
Total Organic Carbon	mg/kg	-	-	-	-	2190 °	-
pН	su	-	-	-	8.33	-	-

^a Elevated detection limit due to dilution required for high interfering element.

All results in mg/kg unless otherwise noted. milligrams per kilogram mg/kg Estimated Value Not Sampled NS Exceeds NJDEP Non-Residential Soil Remediation Standard Not Detected ND Not Analyzed NA Method Detection Limit () Compound Found in Blank B ** Health based standard defaults to soil saturation limit

^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

Analysis done out of holding time.

^d The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

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Client Sample ID:	NJ Non-	AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1A	AU-SS-2A	AU-SS-2A	AU-SS-2	AU-SS-2	AU-SS-2	AU-SS-2	AU-SS-3	AU-SS-3	AU-SS-3	AU-SS-4	AU-SS-4	AU-SS-4	AU-SS-5	AU-SS-5	AU-SS-5	AU-SS-5A AU-SS-6	AU-SS-6	AU-SS-6	AU-SS-6	AU-SS-7	AU-SS-7	AU-SS-7	AV-SS-7R	AU-SS-8	AU-SS-8A	AV-SS-8R
Lab Sample ID:	Residential Direct Conta	JB99093-1			JB99093-1U		JC2396-3	JB99093-2	JB98902-5	JB98902-5T		JB98902-6R	JB98902-6U	JB98902-6UT	JB98902-7	JB98902-7U	JB98902-7UT	JB98902-8	JB98902-8U	JB98902-8UT	JB98902-9	JB98902-9U		JB98902-10 JB98902-1			JB98902-11UT	JB99093-3	JB99093-3T		JB99944-1			JB99944-2
Date Sampled: Matrix:	Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	8/26/2015 Soil	7/13/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 7/10/2015 Soil Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/23/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/23/2015 Soil
Depth		0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	7.5-8.0 ft	7.5-8.0 ft	7.5-8.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	3.5-4.0 ft	3.5-4.0 ft	3.5-4.0 ft	7.5-8.0 ft 0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft		1.5-2.0 ft		1.5-2.0 ft	7.5-8.0 ft	
GC/MS Volatiles (SW846 8260C)																																		
Acetone	mg/k NA	ND (0.13	-	-	-	-	-	0.0244	0.0142	-	ND (0.14)	-	-	-	0.0062 J	-	-	0.0106		-	0.0079 J	-	-	0.0043 J ND (0.12	-	-	-	ND (0.12)		-	0.0633	ND (0.14)	0.192 J	0.279 J
Benzene	mg/k 5	1.29	-	-	-	-	-	0.00049 J	ND (0.00015)	-	0.0425	-		-	(0.00013)		-	ND (0.00012)		-	(0.00014)	-	-	ND (0.00014) ND (0.006	- /	-	-	ND (0.0074)			0.002	ND (0.0084)		0.0495
Bromochloromethane Bromodichloromethane	mg/k -	ND (0.018		-	-	-	-	ND (0.00033)	,	-	ND (0.019)	-	-	-	(0 00054)	-	-	ND (0.00028)	•	-	(0 00033)	-	-	ND (0.00032) ND (0.016		-	•	ND (0.017)	•	•	(0 00033)	ND (0.020)		ND (0.31)
Bromodicniorometriane	mg/k 280	ND (0.009 ND (0.014		-			-	ND (0.00017) ND (0.00025)	ND (0.00017) ND (0.00026)	-	ND (0.0094) ND (0.014)	-		-	(0.00015)		-	ND (0.00014) ND (0.00022)		-	(0.00017)	-		ND (0.00016) ND (0.008 ND (0.00024) ND (0.012	-	-	-	ND (0.0087) ND (0.013)			(0.00017)	ND (0.0099) ND (0.015)		ND (0.13)
Bromomethane	mg/к 59	ND (0.02		-	-	-	-	ND (0.00039)	ND (0.00041)	-	ND (0.022)	-	-	-	(0.00034)	-	-	ND (0.00033)	-	-	(0.00039)	-	-	ND (0.00037) ND (0.019	,	-	-	ND (0.020)	-	-	(0.00039)	(/	(,	ND (0.31)
2-Butanone (MEK)	mg/k 44000	ND (0.11		-	-	-	-	ND (0.0020)	ND (0.0021)	-	ND (0.12)			-	ND (0.0018)		-	ND (0.0018)		-	0.0023 J	-	-	ND (0.0020) ND (0.099	7	-	-	ND (0.11)			0.0305	()	(0.000)	ND (0.63)
Carbon disulfide	mg/k 110000	ND (0.013		-	-	-	-	0.00061 J ND (0.00024)	0.00042 J	-	0.0294 J	-	-	-	(0.00021)	-	-	ND (0.00021)	•	-	(0 00024)	-	-	ND (0.00023) ND (0.012		-	-	ND (0.013)	•	-	0.0031 ND		(, ,	0.0159 J
Carbon tetrachloride Chlorobenzene	mg/K 2	ND (0.014 ND (0.009	,				- 1	ND (0.00024) ND (0.00016)	ND (0.00026) 0.00078 J		ND (0.014) ND (0.0094)	-		-	(0.00022)		- 1	ND (0.00021) ND (0.00014)	-:-		(0.00024)		- 1	ND (0.00024) ND (0.012 ND (0.00016) ND (0.008	,	-	- 1	ND (0.013) 0.196	-:-		(0.00024) 0.0013 J	ND (0.015) ND (0.0098)		ND (0.13)
Chloroethane	mg/k 1100	ND (0.003		-	-	-	-	ND (0.00051)	ND (0.00054)	-	ND (0.029)	-		-	(0.00015)	-	-	ND (0.00044)	-	-	(0.00016)	-	-	ND (0.00049) ND (0.005	-	-	-	ND (0.027)	-	-	ND (0.00051)	ND (0.0030)		ND (0.31)
Chloroform	mg/k 2	ND (0.008	3) -	-	-	-	-	ND (0.00016)	ND (0.00017)	-	ND (0.0090)			-	(0.00014)		-	ND (0.00014)		-	(0 00016)	-		ND (0.00015) ND (0.007	7) -	-		ND (0.0083)			(0 00016)	ND (0.0095)	ID (0.0078)	ND (0.13)
Chloromethane	mg/k 12	ND (0.01) -	-	-	-	-	ND (0.00028)	ND (0.00029)	-	ND (0.016)	-		-	(0.00025)		-	ND (0.00024)		-	(0 00028)	-	-	ND (0.00027) ND (0.014	7	-	-	ND (0.015)			(0.00028)	ND (0.017)	(0.0)	ND (0.31)
Cyclohexane	mg/k	0.921	-	-	-	-	-	0.0042	ND (0.00035)	-	0.108 J	-	-	-	(0.00030)	-	-	ND (0.00029)	•	-	(0 00034)	-	-	ND (0.00032) ND (0.016		-	-	ND (0.018)	•	-	0.0018 J ND	ND (0.020)		0.375
1,2-Dibromo-3-chloropropal	mg/k 8	ND (0.032 ND (0.012	,	-	-	-	-	ND (0.00058) ND (0.00022)	ND (0.00061) ND (0.00023)	-	ND (0.033) ND (0.012)	-	-	-	(0.00051)	-	-	ND (0.00050) ND (0.00019)	-	-	(0.00058)	-	-	ND (0.00056) ND (0.028 ND (0.00021) ND (0.01	7	-	-	ND (0.030) ND (0.011)	-	-	(0.00058)	(0.000)	, ,	ND (0.13) ND (0.13)
1.2-Dibromoethane	mg/k 0.04	ND (0.007	_	-	-	-	-	ND (0.00014)	ND (0.00025)	-	ND (0.0079)	-	-	-	(0.00019)		-	ND (0.00013)		-	(0.00022)	-		ND (0.00021) ND (0.006	_	-	-	ND (0.0073)		-	(0.00014)	ND (0.0083) N		
1,2-Dichlorobenzene	mg/k 59000			-	-	-	-	ND (0.00013)	0.00028 J	-	0.0228 J	-	-	-	(0.00012) (0.00011)	-	-	ND (0.00011)	-	-	(0 00013)	-	-	ND (0.00013) ND (0.006	3) -	-	-	ND (0.0068)	-	-	111111111111111111111111111111111111111	ND (0.0077)		
1,3-Dichlorobenzene	mg/k 59000	ND (0.009		-	-	-	-	ND (0.00017)	ND (0.00018)	-	0.0128 J	-	-	-	(0.00015)	-	-	ND (0.00014)	-	-	(0.00017)	-	-	ND (0.00016) ND (0.008		-	-	ND (0.0087)	-	-	ND (0.00017)	ND (0.010)	ID (0.0082)	ND (0.063)
1,4-Dichlorobenzene	mg/k 13	ND (0.013		-	-	-	-	ND (0.00024)	, ,	-	0.0222 J	-	-	-	(0.00021)	-	-	ND (0.00021)	-	-	(0 00024)	-	-	ND (0.00023) ND (0.012		-	-	ND (0.013)	-	-	(0 00024)	ND (0.014)	(,	(/
Dichlorodifluoromethane 1.1-Dichloroethane	mg/k 230000	ND (0.02	,	-	-	-	-	ND (0.00038)	ND (0.00040)	-	ND (0.022)	-	-	-	(0.00034)	-	-	ND (0.00033)		-	0.00038)	-	-	ND (0.00037) ND (0.019		-	-	ND (0.020)		-	(0.00038)	ND (0.023)	(/	(,
1.2-Dichloroethane	т9/к 3	ND (0.007	-7	-	-	-	-	ND (0.00013)	ND (0.00015)	-	ND (0.0083)	-	-	-	(0.00013)	-	-	ND (0.00013)			ND	-	-	ND (0.00014) ND (0.007	-/	-	-	ND (0.0074)		-	(0.00015)	ND (0.0085) N	- (0.00.0)	(0.000)
1,1-Dichloroethene	mg/k 150	ND (0.03		-	-	-	-	ND (0.00063)		-	ND (0.036)	-	-	-	(0.00013) (0.00056)		-	ND (0.00054)	-	-	(0.00014)	-	-	0.0015 ND (0.03	-	-	-	ND (0.033)	-	-	(0.00063)	ND (0.038)	ND (0.031)	ND (0.063)
cis-1,2-Dichloroethene	mg/k 560	ND (0.046) -	-	-	-	-	ND (0.00083)	ND (0.00087)	-	ND (0.047)	-		-	(0.00073)	-	-	ND (0.00072)	-	-	(0.00083)	-	-	0.00085 J ND (0.040	-	-	-	ND (0.043)	-	-	(0.00082)	ND (0.049)	ND (0.041)	ND (0.063)
trans-1,2-Dichloroethene	m8/K 720	ND (0.03	,	-	-	-	-	ND (0.00063)	(0.00000)	-	ND (0.036)	-	-	-	(0.00056)		-	ND (0.00055)	•	-	(0 00063)	-	-	ND (0.00061) ND (0.03	7	-	-	ND (0.033)	•	-	(0.00063)	ND (0.038)	(0.00.)	(0.000)
1,2-Dichloropropane	mg/k 7	ND (0.014	,	-	-	-	-	ND (0.00025)	ND (0.00027) ND (0.00013)	-	ND (0.014)	-		-	(0 00055)	•	-	ND (0.00022)	-	-	(0 00025)	-	-	ND (0.00024) ND (0.012 ND (0.00012) ND (0.006		-	-	ND (0.013)	-		(0 00025)	ND (0.015) ND (0.0075)	, ,	ND (0.13)
trans-1.3-Dichloropropene	m8/к 7	ND (0.007	-7	-		-	-	ND (0.00013)	, ,	-	ND (0.0071)	-		-	(0.00011)		-	ND (0.00011)		-	(0 00013)	-		ND (0.00012) ND (0.000	.7	-	-	ND (0.0066)			(0 00012)	ND (0.0075) I		ND (0.13)
Ethylbenzene	mg/k 110000	27	-	-	-	-	-	ND (0.00017)	ND (0.00018)	-	0.576	-	-	-	(0.00017) (0.00015)		-	ND (0.00015)		-	(0.00019) 0.00059 J	-	-	ND (0.00017) 0.0192 J	-	-	-	2.67		-	0.0041	2.35	8.21	2.19
Freon 113	mg/k	ND (0.026) -	-	-	-	-	ND (0.00048)	ND (0.00050)	-	ND (0.027)	-		-	(0.00042)		-	ND (0.00041)		-	(0.00048)	-	-	ND (0.00046) ND (0.023	-	-	-	ND (0.025)			ND (0.00047)	ND (0.028)	ND (0.023)	ND (0.31)
2-Hexanone	mg/k	ND (0.079) -	-	-	-	-	ND (0.0014)	ND (0.0015)	-	ND (0.081)	-	-	-	ND (0.0013)	-	-	ND (0.0012)	-	-	ND (0.0014)	-	-	ND (0.0014) ND (0.070		-	-	ND (0.074)	-	-		ND (0.085)		ND (0.31)
Isopropylbenzene Methyl Acetate	mg/k	8.5 ND (0.05	-	-	-	-	-	0.0054 ND (0.00091)	ND (0.00012) ND (0.00096)	-	0.201 ND (0.052)	-	-	-	(0.00010)	-	-	(0.000097) ND (0.00079)	-	-	(0 00011)	-	-	ND (0.00011) 0.010 J ND (0.00088) ND (0.048		-	-	0.988 ND (0.048)	-		0.0105 ND	1.24 ND (0.055)		3.32 ND (0.31)
Methylcyclohexane	mg/k NA	9.86	, -	-			-	0.0407	ND (0.00096)	-	2.66			-	(0.00081)		-	ND (0.00079)		-	(0.00092)		-	ND (0.00088) ND (0.043	_	-	-	0.262		-	(0.00091)	7.24	3.09	5.25
Methyl Tert Butyl Ether	mg/k 320	ND (0.009)) -	-	-	-	-	0.0011	ND (0.00017)		ND (0.0093)	-	-	-	(0.00014)		-	ND (0.00014)		-	(0.00016)	-	-	ND (0.00016) ND (0.007	,	-	-	ND (0.0085)			ND	ND (0.0097) N		
4-Methyl-2-pentanone(MIBH	mg/k	ND (0.02)) -	-	-	-	-	ND (0.00049)	ND (0.00051)	-	ND (0.028)	1		-	(0.00043)	٠	-	ND (0.00042)		-	(0.00049)	-		ND (0.00047) ND (0.024	-	-	-	ND (0.026)			(0.00049)	ND (0.029)	ND (0.024)	ND (0.31)
Methylene chloride	mg/k 97	ND (0.058) -	-	-	-	-	ND (0.0010)	ND (0.0011)	-	ND (0.059)	-	-	-	(0.00092)	-	-	ND (0.00090)	-	-	ND (0.0010)	-	-	ND (0.0010) ND (0.05	<i>'</i>	-	-	ND (0.055)	-	-	0.0052 J	, ,		ND (0.31)
Styrene Tert Butvl Alcohol	mg/k 260	ND (0.01) -	-	-	-	-	ND (0.00019)	ND (0.00020)	-	ND (0.011)	-	-	-	(0.00017) ND (0.0025)	-	-	ND (0.00016)	-	-	(0.00019)	-	-	ND (0.00018) ND (0.009	-/	-	-	ND (0.0099)	-	-	(0.00019) ND (0.0028)	ND (0.011) ND (0.17)		ND (0.13) ND (1.6)
1.1.2.2-Tetrachloroethane	mg/k 11000	ND (0.16		-	-		+ :	ND (0.0028) ND (0.00019)		-	ND (0.16) ND (0.011)	-	-	-	ND	-	-	ND (0.0025) ND (0.00016)	-	-	ND	-		ND (0.0027) ND (0.14 ND (0.00018) ND (0.009		-	-	ND (0.15) ND (0.0097)	-	-	ND	ND (0.17) ND (0.011)		(- /
Tetrachloroethene	mg/k 5	ND (0.018	,	-	-	-	-	ND (0.00013)	ND (0.00034)	-	ND (0.011)	-	-	-	(0.00038)	-	-	ND (0.00018)	-	-	(0.00033)	-	-	ND (0.00031) ND (0.016	.7	-	-	ND (0.017)	-	-	(0.00019) 0.00084 J	ND (0.011)	(,	ND (0.13)
Toluene	mg/k 91000	0.435	-	-	-	-	-	ND (0.00022)	ND (0.00023)	-	0.0366 J	-	-	-	(U UUUSU)	-	-	ND (0.00019)	-	-	(U UUU55)	-	-	ND (0.00021) ND (0.01	-	-	-	0.0479 J	-	-	0.0084	0.396		0.237
1,2,3-Trichlorobenzene	mg/k	ND (0.010	,	-	-	-	-	ND (0.00019)	, ,	-	ND (0.011)	-	-	-	(0.00017)	-	-	ND (0.00016)	-	-	(0 00019)	-	-	ND (0.00018) ND (0.009	-	-	-	ND (0.0098)	-	-	(0.00019)	ND (0.011)	, ,	ND (0.31)
1,2,4-Trichlorobenzene	mg/k 820	ND (0.010	,	-	-	-	-	ND (0.00018)	(/	-	ND (0.010)	-	-	-	(0.00016)	-	-	ND (0.00016)	-	-	(0 00018)	-	-	ND (0.00017) ND (0.008	-,	-	-	ND (0.0094)	-	-	(0.00018)	ND (0.011)		
1,1,1-Trichloroethane 1,1,2-Trichloroethane	mg/k 4200	ND (0.008 ND (0.008	·	-	-	-	-	ND (0.00016) ND (0.00016)	ND (0.00017) ND (0.00016)	-	ND (0.0090) ND (0.0089)	-	-	-	(0.00014)	-	-	ND (0.00014) ND (0.00014)	-	-	(0.00016)	-	-	ND (0.00015) ND (0.007 ND (0.00015) ND (0.007	-	-	-	ND (0.0083) ND (0.0082)	-	-	(0.00016)	ND (0.0095) ND (0.0093) ND (0.0093)	, ,	, ,
Trichloroethene	mg/к 20	ND (0.008	-	-	-	-	-	ND (0.00016)		-	ND (0.0089)	-	-	-	(0.00014)		-	ND (0.00014)		-	(0.00016)	-		0.001 ND (0.007	-7	-	-	ND (0.0082)		-	TO THU THIS	ND (0.0093) N		
Trichlorofluoromethane	mg/k 340000	ND (0.01) -	-	-	-	-	ND (0.00026)	ND (0.00028)	-	ND (0.015)	-	-	-	(0.00014) (0.00023)	-	-	ND (0.00023)	-	-	(0.00016)	-	-	ND (0.00026) ND (0.013	-	-	-	ND (0.014)	-	-	(0.00026)	ND (0.016)	ND (0.013)	ND (0.31)
Vinyl chloride	mg/k 2	ND (0.012) -	-	-	-	-	ND (0.00021)	ND (0.00022)	-	ND (0.012)	-	-	-	(0.00019)	-	-	ND (0.00018)	-	-	(0.00021)	-	-	ND (0.00020) ND (0.010	7	-	-	ND (0.011)	-	-	(0.00021)	()	, ,	ND (0.13)
m,p-Xylene	mg/k 170000	18.1	-	-	-	-	-	ND (0.00037)	ND (0.00039)	-	0.688	-	-	-	(0 00033)	-	-	ND (0.00032)	-	-	0.0011	-	-	ND (0.00036) ND (0.018	_	-	-	8.82	-	-	0.0082	5.23	14.8	3.7
o-Xylene Xylene (total)	mg/k 170000	4.71 22.8	-	-	-	-	-	0.0015 0.0015	ND (0.00031) ND (0.00031)	-	0.0916	-	-	-	(0 00059)	-	-	ND (0.00025) ND (0.00025)	-	-	0.00042 J 0.0015	-	-	ND (0.00028) ND (0.014 ND (0.00028) ND (0.014	7	-	-	2.69	-	-	0.0065 0.0147	2.33 7.56	5.32 20.1	0.317 4.02
, , ,	170000	22.8						0.0015	(0.00031) עוויו		0.779	-	-		(0.00026)			(0.00025) עאו			0.0013			ND (0.00026) ND (0.014	-			11.5		-	0.0147	7.00	4U.1	4.02
GC/MS Volatile TIC	I malk						_	_															_											
Total TIC, Volatile	m8/k	65.6 J	-	-	-	-	-	3.41 J	0	-	155.8 J	-	-	-	0	-	-	0	-	-	0.021 J	-	-	0 159.4 J	-	-	-	62.8 J	-	-	1.9 J			65.9 J
Total Alkanes	0	26.3 J	-	-	-	-	-	0.24 J	0.0099 J	-	0	-	-	-	0	-	-	0	-	-	0	-	-	0 82.2 J	-	-	-	3.4 J	-	-	1.72 J	445 J	262.1 J	70.2 J

Table 4-1

Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey

Summary of Soil Sample Results at AOC 25 - X-1950A and X-1950B, AOC-40 - Fresh Acid Unloading Area, AOC-92 - TK-701A and TK-701B

Client Sample ID:			AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1	AU-SS-1A	AU-SS-2A	AU-SS-2A	AU-SS-2	AU-SS-2	AU-SS-2	AU-SS-2	AU-SS-3	AU-SS-3	AU-SS-3	AU-SS-4	AU-SS-4	AU-SS-4	AU-SS-5	AU-SS-5	AU-SS-5	AU-SS-5A	AU-SS-6	AU-SS-6	AU-SS-6	AU-SS-6	AU-SS-7	AU-SS-7	AU-SS-7	AV-SS-7R	AU-SS-8	AU-SS-8A	AV-SS-8R
Lab Sample ID:		NJ Non- Residential Direct Contact	JB99093-1	JB99093-1R	JB99093-1RR	JB99093-1U	JB99093-1UR	JC2396-3	JB99093-2	JB98902-5	JB98902-5T	JB98902-6	JB98902-6R	JB98902-6U	JB98902-6UT	JB98902-7	JB98902-7U	JB98902-7UT	JB98902-8	JB98902-8U	JB98902-8UT	JB98902-9	JB98902-9U	JB98902-9UT	JB98902-10	JB98902-11	JB98902-11R	JB98902-11U	JB98902-11UT	JB99093-3	JB99093-3T	JB99093-3TU	JB99944-1	JB99093-4	JB99093-5	JB99944-2
Date Sampled: Matrix:		Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	8/26/2015 Soil	7/13/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/10/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/23/2015 Soil	7/13/2015 Soil	7/13/2015 Soil	7/23/2015 Soil
Depth			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	7.5-8.0 ft	7.5-8.0 ft	7.5-8.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	6.5-7.0 ft	3.5-4.0 ft	3.5-4.0 ft	3.5-4.0 ft	7.5-8.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	7.5-8.0 ft	1.5-2.0 ft
GC/MS Semi-volatiles (SW846	8270D)																																			
Acenaphthene	mg/k	37000	2.03	-	-	-	-	-	2.08	, ,			-	-	-	ND (0.0078)	-	-	ND (0.0078)	-	-	ND (0.0079)	-	-	, ,	ND (0.0071)	-	-	-	3.8	-	-	-	5.3	10.7	-
Acenaphthylene	mg/k	300000	ND (0.0053)	-	-	-	-	-	ND (0.011)	· · ·	, ,	, ,	-	-	-	ND (0.0058)	-	-	ND (0.0059)	-	-	ND (0.0059)	-	-	, ,	ND (0.0053)	-	-	-	ND (0.011)	-	-	-	ND (0.011)	ND (0.011)	-
2-Chlorophenol Anthracene	mg/ĸ	2200 30000	ND (0.032) ND (0.0079)	-		-	-	-	ND (0.066) ND (0.016)	, ,	ND (0.033) ND (0.0082)	ND (0.035) 0.0289 J		-	-	ND (0.035) ND (0.0087)		-	ND (0.035) ND (0.0087)		-	ND (0.035) ND (0.0088)		-	ND (0.033)	ND (0.032) ND (0.0079)	-	-	-	ND (0.065)	-	-	-	ND (0.069) 8.87	ND (0.067) 3.78	-
Benzo(a)anthracene	mg/k	2	0.0545	-	-	-	-	-	ND (0.014)	· · ·	ND (0.0071)	0.0325 J	-	-	-	ND (0.0075)	-	-	ND (0.0075)	-	-	ND (0.0075)	-	-	(/	ND (0.0068)	-	-	-	ND (0.014)	-	-	-	1.21	0.0505 J	-
4-Chloro-3-methyl phenol	mg/k	-	ND (0.066)	-	-	-	-	-	ND (0.14)	ND (0.073)	ND (0.068)	ND (0.072)	-	-	-	ND (0.072)	-	-	ND (0.073)	-		ND (0.073)		-	ND (0.068)	ND (0.066)	-	-	-	ND (0.13)	-	-	-	ND (0.14)	ND (0.14)	-
Benzo(a)pyrene	mg/k	0.2	0.0215 J	-	-	-	-	-	ND (0.018)	(, , , ,	ND (0.0088)		-	-	-	ND (0.0093)	-	-	ND (0.0093)	-	-	ND (0.0094)	-	-	(,	ND (0.0085)	-	-	-	ND (0.017)	-	-	-	ND (0.018)	ND (0.018)	-
2,4-Dichlorophenol Benzo(b)fluoranthene	mg/k	2100	ND (0.065) 0.0251 J	-		-	-	-	ND (0.14) ND (0.014)	, ,	ND (0.068) ND (0.0072)	ND (0.072)		-		ND (0.071) ND (0.0076)		-	ND (0.072) ND (0.0076)			ND (0.072) ND (0.0077)		-	ND (0.067) ND (0.0072)	ND (0.065) ND (0.0069)	-	-	-	ND (0.13) ND (0.014)	-	-	-	ND (0.14) ND (0.015)	ND (0.14) ND (0.014)	-
2,4-Dimethylphenol	mg/k	14000	ND (0.077)	-	-	-	-	-	ND (0.16)	ND (0.085)	ND (0.080)	ND (0.084)	-	-	-	ND (0.084)	-	-	ND (0.085)	-	-	ND (0.085)	-	-	ND (0.079)	ND (0.077)	-	-	-	ND (0.16)	-	-	-	ND (0.16)	ND (0.16)	-
2,4-Dinitrophenol	mg/k	1400	ND (0.15)	-	-	-	-	-	ND (0.31)	· · ·	ND (0.15)	ND (0.16)		-	-	ND (0.16)	-	-	ND (0.16)	-		ND (0.16)		-	ND (0.15)	ND (0.15)	-	-	-	ND (0.30)	-	-	-	ND (0.32)	ND (0.31)	-
Benzo(g,h,i)perylene Benzo(k)fluoranthene	mg/k	30000	0.0144 J	-	•	-	-	-	ND (0.024)	, ,	, ,	, ,	•	-	-	ND (0.013)	-	-	ND (0.013)	•	-	ND (0.013)	•	-	ND (0.012)	, ,	-	-	-	ND (0.024)	-	-	-	ND (0.025)	ND (0.024)	-
4.6-Dinitro-o-cresol	mg/k	23 68	ND (0.011) ND (0.029)	-		-	-	-	ND (0.023) ND (0.059)	, ,	ND (0.012) ND (0.030)	ND (0.012) ND (0.031)		-	-	ND (0.012) ND (0.031)		-	ND (0.012) ND (0.032)		-	ND (0.012) ND (0.032)	-	-	ND (0.012) ND (0.030)	ND (0.011) ND (0.029)	-	-	-	ND (0.023) ND (0.058)	-	-	-	ND (0.024) ND (0.062)	ND (0.023) ND (0.060)	-
Chrysene	mg/k	230	0.0959	-	-	-	-	-	ND (0.018)		ND (0.0090)	0.0434	-	-	-	ND (0.0095)	-	-	ND (0.0095)	-	-	ND (0.0096)	-	-		ND (0.0086)	-	-	-	ND (0.018)	-	-	-	2.5	0.0603 J	-
Dibenzo(a,h)anthracene	mg/k	0.2	ND (0.0085)	-		-	-	-	ND (0.018)			ND (0.0093)	-	-	-	ND (0.0093)	-	-	ND (0.0093)	-		ND (0.0094)		-	ND (0.0088)	ND (0.0085)	-	-	-	ND (0.017)	-	-	-	ND (0.018)	ND (0.018)	-
Fluoranthene	mg/k	24000	0.16	-	-	-	-	-	0.0505 J	ND (0.014)	ND (0.013)	0.0942	-	-	-	ND (0.013)	-	-	ND (0.013)	-	-	ND (0.014)	-	-	ND (0.013)	0.0158 J	-	-	-	ND (0.025)	-	-	-	2.2	0.307	-
2-Methylphenol 3&4-Methylphenol	mg/ĸ	3400	ND (0.046) ND (0.039)	-			-	-	ND (0.096) ND (0.081)	, ,	ND (0.048) ND (0.041)	ND (0.051) ND (0.043)			1	ND (0.051) ND (0.043)	-:-	-	ND (0.051) ND (0.043)	-:-		ND (0.051) ND (0.043)			ND (0.048) ND (0.040)					ND (0.093) ND (0.079)		- 1	-	ND (0.099) ND (0.084)	ND (0.096) ND (0.082)	-
Fluorene	mg/k	24000	3.31	-	-	-	-	-	1.11	ND (0.030)	· · ·	ND (0.029)	-	-	-	ND (0.029)	-	-	ND (0.029)	-	-	ND (0.030)	-	-	, ,	ND (0.027)	-	-	-	4.56	-	-	-	7.93	11.4	-
Indeno(1,2,3-cd)pyrene	mg/k	2	ND (0.011)	-	-	-	-	-	ND (0.023)	, ,	ND (0.012)	ND (0.012)	-	-	-	ND (0.012)	-	-	ND (0.012)	-		ND (0.012)		-	ND (0.012)	ND (0.011)	-	-	-	ND (0.023)	-	-	-	ND (0.024)	ND (0.023)	-
2-Nitrophenol	mg/k	-	ND (0.032)	-	•	-	-	-	ND (0.066)		ND (0.033)		-	-	-	ND (0.035)	-	-	ND (0.035)	-	-	ND (0.035)	-	-	, ,	ND (0.032)	-	-	-	ND (0.065)	-	-	-	ND (0.069)	ND (0.067)	-
Naphthalene 4-Nitrophenol	mg/k	- 1/	14.8 ND (0.11)	-	-	-	-	-	ND (0.011) ND (0.22)		ND (0.0054) ND (0.11)	0.126 ND (0.12)	-	-	-	ND (0.0057) ND (0.12)		-	ND (0.0057) ND (0.12)	-		ND (0.0058) ND (0.12)		-	ND (0.0054) ND (0.11)	ND (0.0052) ND (0.11)	-	-	-	ND (0.011) ND (0.22)	-	-	-	9.33 ND (0.23)	21.8 ND (0.22)	-
Pentachlorophenol	mg/ĸ	10	ND (0.086)	-	-	-	-	-	ND (0.18)	ND (0.095)	ND (0.088)	ND (0.094)	-	-	-	ND (0.094)	-	-	ND (0.094)	-	-	ND (0.095)		-	ND (0.088)	ND (0.085)	-	-	-	ND (0.17)	-	-	-	ND (0.18)	ND (0.18)	-
Phenanthrene	mg/k	300000	8.72	-	-	-	-	-	6.88	ND (0.0083)	ND (0.0078)	0.109	-	-	-	ND (0.0082)	-	-	ND (0.0083)	-	-	ND (0.0083)		-	ND (0.0077)	ND (0.0075)	-	-	-	10.2	-	-	-	54.7	35.8	-
Pyrene	ma/k	18000	0.57	-	-	-	-	-	0.146	ND (0.0089)	, ,		-	-	-	ND (0.0087)	-	-	ND (0.0088)	-	-	ND (0.0088)	-	-	ND (0.0082)		-	-	-	0.486	-	-	-	12.4	0.863	-
Phenol 2.3.4.6-Tetrachlorophenol	mg/ĸ	210000	ND (0.023) ND (0.083)	-		-	-	-	ND (0.047) ND (0.17)	, ,	ND (0.024)	ND (0.025) ND (0.090)		-		ND (0.025) ND (0.090)	- :	-	ND (0.025) ND (0.091)			ND (0.025) ND (0.091)			ND (0.024) ND (0.085)	ND (0.023) ND (0.082)		-	-	ND (0.046) ND (0.17)	-	-	-	ND (0.049) ND (0.18)	ND (0.048) ND (0.17)	
2,4,5-Trichlorophenol	mg/k	68000	ND (0.078)	-	-	-	-	-	ND (0.17)	, ,	()	(,	-	-	-	ND (0.085)	-	-	ND (0.086)	-	-	ND (0.086)		-	(,	ND (0.078)	-	-	-	ND (0.17)	-	-	-	ND (0.17)	ND (0.17)	-
2,4,6-Trichlorophenol	mg/k	74	ND (0.055)	-		-	-	-	ND (0.11)	ND (0.061)	ND (0.057)	ND (0.060)	-	-	-	ND (0.060)	-	-	ND (0.060)	-		ND (0.061)		-	ND (0.057)	ND (0.055)	-	-	-	ND (0.11)	-	-	-	ND (0.12)	ND (0.11)	-
Acetophenone	mg/k	5	ND (0.011)	-	-	-	-	-	ND (0.023)		ND (0.011)	ND (0.012)	-	-	-	ND (0.012)	-	-	ND (0.012)	-	-	ND (0.012)	-	-	ND (0.011)	ND (0.011)	-	-	-	ND (0.022)	-	-	-	ND (0.024)	ND (0.023)	-
Atrazine 4-Bromophenyl phenyl eth	er mg/k	2400	ND (0.021) ND (0.014)	-	-	-	-	-	ND (0.043) ND (0.030)	, ,	ND (0.022) ND (0.015)	ND (0.023) ND (0.016)	-	-	-	ND (0.023) ND (0.016)		-	ND (0.023) ND (0.016)	-		ND (0.023) ND (0.016)		-	ND (0.022)	ND (0.021) ND (0.014)	-	-	-	ND (0.042) ND (0.029)	-	-	-	ND (0.045) ND (0.031)	ND (0.044) ND (0.030)	-
Butyl benzyl phthalate	mg/k	14000	ND (0.014)	-	-	-	-	-	ND (0.029)	, ,	ND (0.014)	ND (0.015)	-	-	-	ND (0.015)	-	-	ND (0.015)	-	-	ND (0.015)	-	-	ND (0.014)	ND (0.014)	-	-	-	ND (0.028)	-	-	-	ND (0.030)	ND (0.029)	-
1,1'-Biphenyl	mġ/k	34000	1.3	-	-	-	-	-	ND (0.014)	· · ·	, ,	, ,	-	-	-	ND (0.0077)	-	-	ND (0.0077)	-		ND (0.0077)		-	, ,	ND (0.0070)	-	-	-	ND (0.014)	-	-	-	ND (0.015)	3.27	-
Benzaldehyde	mg/k	68000	ND (0.0085)	-	-	-	-	-	ND (0.017)	, ,	, ,	ND (0.0092)	-	-	-	ND (0.0092)	•	-	ND (0.0093)	-	-	ND (0.0093)	-	-	- ' '	ND (0.0084)	-	-	-	ND (0.017)	-	-	-	ND (0.018)	ND (0.018)	-
2-Chloronaphthalene 4-Chloroaniline	mg/k	-	ND (0.0080) ND (0.011)	-	-	-	-	-	ND (0.017) ND (0.024)	· · ·	ND (0.0083) ND (0.012)	ND (0.0087) ND (0.012)	-	-	-	ND (0.0087) ND (0.012)		-	ND (0.0088) ND (0.012)	-		ND (0.0088) ND (0.013)		-	ND (0.0082) ND (0.012)	ND (0.0079) ND (0.011)	-	-	-	ND (0.016) ND (0.023)	-	-	-	ND (0.017) ND (0.024)	ND (0.017) ND (0.024)	-
Carbazole	mg/k	96	ND (0.0079)	-	-	-	-	-	ND (0.016)	, ,	ND (0.0082)		-	-	-	ND (0.0086)	-	-	ND (0.0086)	-	-	ND (0.0087)	-	-		ND (0.0078)	-	-	-	ND (0.016)	-	-	-	ND (0.017)	ND (0.016)	-
Caprolactam	mg/k	340000	ND (0.022)	-	-	-	-	-	ND (0.046)	ND (0.024)	ND (0.023)	ND (0.024)		-	-	ND (0.024)	-	-	ND (0.024)	-		ND (0.024)		-	ND (0.023)	ND (0.022)	-	-	-	ND (0.045)	-	-	-	ND (0.047)	ND (0.046)	-
bis(2-Chloroethoxy)metha	ne mg/k	-	ND (0.024) ND (0.0082)	-	-	-	-	-	ND (0.049) ND (0.017)	, ,	ND (0.024)	ND (0.026)	-	-	-	ND (0.026) ND (0.0089)	-	-	ND (0.026) ND (0.0090)	-	-	ND (0.026) ND (0.0090)	-	-	ND (0.024) ND (0.0084)	ND (0.024) ND (0.0081)	-	-	-	ND (0.048) ND (0.016)	-	-	-	ND (0.051)	ND (0.049) ND (0.017)	-
bis(2-Chloroethyl)ether bis(2-Chloroisopropyl)ethe	mg/ĸ	67	ND (0.0082)	-	-	-		-	ND (0.017)	, ,	ND (0.0084) ND (0.013)			-	-	ND (0.0089)		-	ND (0.0090)	-		ND (0.0090)		-	ND (0.0064)	(/	-	-	-	ND (0.016)	-	-	-	ND (0.017) ND (0.026)	ND (0.017)	-
4-Chlorophenyl phenyl eth	mark	-	ND (0.0075)	-		-	-	-	ND (0.015)	, ,	· · ·	ND (0.0082)	-	-	-	ND (0.0082)	-	-	ND (0.0082)	-	-	ND (0.0082)	-	-	, ,	ND (0.0074)	-	-	-	ND (0.015)	-	-	-	, ,	ND (0.015)	-
2,4-Dinitrotoluene	mg/k	3	ND (0.012)	-	-	-	-	-	ND (0.024)	, ,	ND (0.012)	ND (0.013)	-	-	-	ND (0.013)	-	-	ND (0.013)	-	-	ND (0.013)	-	-	ND (0.012)	ND (0.012)	-	-	-	ND (0.023)	-	-	-	ND (0.025)	ND (0.024)	-
2,6-Dinitrotoluene	mg/k	3	ND (0.0075)	-	-	-	-	-	ND (0.015)		ND (0.0077)	(, , , ,	-	-	-	ND (0.0082)	-	-	ND (0.0082)	-	-	ND (0.0083)	-	-		ND (0.0075)	-	-	-	ND (0.015)	-	-	-	ND (0.016)	ND (0.016)	-
3,3'-Dichlorobenzidine 1,4-Dioxane	mg/k	-	ND (0.019) ND (0.024)	-	-	-		-	ND (0.039) ND (0.049)	(/	ND (0.020) ND (0.024)	ND (0.021) ND (0.026)	-	-	-	ND (0.021) ND (0.026)	-	-	ND (0.021) ND (0.026)	-	-	ND (0.021) ND (0.026)	-	-	ND (0.020) ND (0.024)	ND (0.019) ND (0.024)	-	-	-	ND (0.038) ND (0.048)	-	-	-	ND (0.041) ND (0.051)	ND (0.039) ND (0.049)	
Dibenzofuran	mg/ĸ	-	ND (0.0057)	-	-	-	-		, ,	ND (0.0063)		(/		-	-	ND (0.0063)		-	ND (0.0063)	-	-	ND (0.0063)	-	-	(/	ND (0.0057)	-	-		ND (0.012)	-			ND (0.012)	(* * * * /	
Di-n-butyl phthalate	mg/k		ND (0.0095)	-	-	-	-	-	, ,	ND (0.010)		, ,	-	-	-	ND (0.010)	-	-	ND (0.010)	-	-	ND (0.010)	-	-	, ,	ND (0.0094)	-	-	-	ND (0.019)	-	-	-	ND (0.020)	ND (0.020)	
Di-n-octyl phthalate	mg/k	27000 550000	ND (0.0088)	-	-	-	-	-	(/	ND (0.0097)	()	(,	-	-	-	ND (0.0096)	-	-	ND (0.0096)	-	-	ND (0.0097)	-	-	, ,	ND (0.0087)	-	-	-	ND (0.018) ND (0.017)	-	-	-	, ,	ND (0.018)	-
Diethyl phthalate Dimethyl phthalate	mg/ĸ	550000	ND (0.0085) ND (0.0071)	-	-	-	-	-	ND (0.018) ND (0.015)	ND (0.0094) ND (0.0079)		ND (0.0093) ND (0.0078)	-	-	-	ND (0.0093) ND (0.0078)	-	-	ND (0.0093) ND (0.0078)	-		ND (0.0094) ND (0.0079)	-	-		ND (0.0084) ND (0.0071)	-	-	-	ND (0.017) ND (0.014)		-	-		ND (0.018) ND (0.015)	
bis(2-Ethylhexyl)phthalate	mg/k	140	0.511	-		-	-	-	ND (0.024)	· · ·	, ,	. ,		-	-	ND (0.013)	-	-	ND (0.013)			ND (0.013)		-	ND (0.012)		-	-	-	ND (0.023)	-	-	-	0.361	0.237	
Hexachlorobenzene	mg/k	1	ND (0.0094)	-	-	-	-	-	ND (0.019)	, ,	ND (0.0097)	, ,	-	-	-	ND (0.010)	-	-	ND (0.010)	-		ND (0.010)	-	-		ND (0.0094)	-	-	-	ND (0.019)	-	-	-	ND (0.020)		
Hexachlorobutadiene	mg/k	25	ND (0.012)	-	-	-	-	-	ND (0.025)		ND (0.012)		-	-	-	ND (0.013)	-	-	ND (0.013)	-	-	ND (0.013)	-	-		ND (0.012)	-	-	-	ND (0.024)	-	-	-	ND (0.025)		<u> </u>
Hexachlorocyclopentadier Hexachloroethane	mg/k	110 140	ND (0.013) ND (0.018)	-	-	-	-	-	ND (0.028) ND (0.037)			, ,	-	-	-	ND (0.015) ND (0.019)	-	-	ND (0.015) ND (0.019)	-	-	ND (0.015) ND (0.020)	-	-	, ,	ND (0.013) ND (0.018)	-	-	-	ND (0.027) ND (0.036)	-	-	-	ND (0.029) ND (0.038)	ND (0.028) ND (0.037)	
Isophorone	mg/k	2000	ND (0.0061)	-		-	-	-	ND (0.013)				-	-	-	ND (0.0066)	-	-	ND (0.0067)	-	-	ND (0.0067)	-	-		ND (0.0060)	-	-	-	ND (0.012)	-	-	-	ND (0.013)		-
2-Methylnaphthalene	mg/k	2400	59.4	-	-	-	-	-	6.63	ND (0.0090)	, ,		-	-	-	ND (0.0089)	-	-	ND (0.0089)	-	-	ND (0.0090)	-	-	, ,	ND (0.0081)	-	-	-	36.9	-	-	-	39.5	219	-
2-Nitroaniline	mg/k mg/k	23000	ND (0.016)	-	-	-	-	-	ND (0.034)	, ,		, ,	-	-	-	ND (0.018)	-	-	ND (0.018)	-	-	ND (0.018)	-	-		ND (0.016)	-	-	-	ND (0.033)	-	-	-		ND (0.034)	-
3-Nitroaniline 4-Nitroaniline	mg/k		ND (0.012) ND (0.0098)	-		-	-	-	ND (0.024) ND (0.020)		ND (0.012) ND (0.010)		-	-	-	ND (0.013) ND (0.011)	-	-	ND (0.013) ND (0.011)	-		ND (0.013) ND (0.011)	-	-		ND (0.012) ND (0.0097)	-	-	-	ND (0.024) ND (0.020)	-	-	-		ND (0.024) ND (0.020)	
Nitrobenzene	mg/k	340	ND (0.014)	-	-	-	-	-	ND (0.030)				-	-	-	ND (0.011)	-	-	ND (0.016)	-	-	ND (0.016)	-	-		ND (0.014)	-	-	-	ND (0.029)	-	-	-	ND (0.021)		-
N-Nitroso-di-n-propylamin	e mg/k	0.3	ND (0.0099)	-	-	-	-	-	ND (0.020)		ND (0.010)		-	-	-	ND (0.011)	-	-	ND (0.011)	-		ND (0.011)	-	-	, ,	ND (0.0098)	-	-	-	ND (0.020)	-	-	-		ND (0.020)	-
N-Nitrosodiphenylamine	ma/k	390	ND (0.0085)	-	-	-	-	-	ND (0.018)		ND (0.0088)		-	-	-	ND (0.0093)	-	-	ND (0.0093)	-		ND (0.0094)	-	-		ND (0.0085)	-	-	-	ND (0.017)	-	-	-	ND (0.018)		
1,2,4,5-Tetrachlorobenzer	ne n	-	ND (0.0059)	-	-	-	-	-	ND (0.012)	ND (0.0066)	ND (0.0061)	ND (0.0065)	-	-	-	ND (0.0065)	-	-	ND (0.0065)	-	-	ND (0.0066)	-	-	ND (0.0061)	ND (0.0059)	-	-		ND (0.012)		-	-	ทบ (0.013)	ND (0.012)	-

Table 4-1

Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey

Summary of Soil Sample Results at AOC 25 - X-1950A and X-1950B, AOC-40 - Fresh Acid Unloading Area, AOC-92 - TK-701A and TK-701B

Client Sample ID:	NJ Non- Residential	AU-SS-1 JB99093-1	AU-SS-1 JB99093-1R	AU-SS-1 JB99093-1RR	AU-SS-1 JB99093-1U	AU-SS-1 JB99093-1UR	AU-SS-1 JC2396-3	AU-SS-1A JB99093-2	AU-SS-2A JB98902-5	AU-SS-2A JB98902-5T	AU-SS-2 JB98902-6	AU-SS-2 JB98902-6R	AU-SS-2 JB98902-6U	AU-SS-2 JB98902-6UT	AU-SS-3 JB98902-7	AU-SS-3 JB98902-7U	AU-SS-3 JB98902-7UT	AU-SS-4 JB98902-8	AU-SS-4 JB98902-8U	AU-SS-4 JB98902-8UT	AU-SS-5 JB98902-9	AU-SS-5 JB98902-9U	AU-SS-5 JB98902-9UT	AU-SS-5A JB98902-10	AU-SS-6 JB98902-11	AU-SS-6 JB98902-11R	AU-SS-6 JB98902-11U	AU-SS-6 JB98902-11UT	AU-SS-7 JB99093-3	AU-SS-7 JB99093-3T	AU-SS-7 JB99093-3TU	AV-SS-7R JB99944-1	AU-SS-8 JB99093-4		AV-SS-8R JB99944-2
Date Sampled:	Direct Contact		7/13/2015	7/13/2015	7/13/2015	7/13/2015	8/26/2015	7/13/2015	7/10/2015	7/10/2015		7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/10/2015	7/13/2015	7/13/2015	7/13/2015	7/23/2015			7/23/2015
Matrix: Depth	3011	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 7.5-8.0 ft	Soil 7.5-8.0 ft	Soil 7.5-8.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 6.5-7.0 ft	Soil 6.5-7.0 ft	Soil 6.5-7.0 ft	Soil 6.5-7.0 ft	Soil 6.5-7.0 ft	Soil 6.5-7.0 ft	Soil 3.5-4.0 ft	Soil 3.5-4.0 ft	Soil 3.5-4.0 ft	Soil 7.5-8.0 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 7.5-8.0 ft	Soil
GC/MS Semi-volatile TIC		0.5-1.0 10	0.3-1.0 it	0.3-1.0 10	0.3-1.0 10	0.3-1.0 11	0.5-1.010	7.5-0.0 10	7.5-0.0 it	7.5-0.0 10	1.5-2.0 It	1.5-2.0 10	1.3-2.0 10	1.5-2.0 10	0.5-7.0 10	0.3-7.0 It	0.5-7.0 10	0.3-7.0 It	0.5-7.0 It	0.5-7.011	3.34.011	3.5-4.0 11	3.3-4.0 10	7.5-0.0 10	0.3-1.0 10	0.5-1.0 10	0.5-1.0 10	0.5-1.0 10	1.5-2.0 10	1.5-2.0 10	1.5-2.0 10	1.3-2.0 It	1.5-2.0 10	7.5-0.0 11	1.5-2.0 It
Total TIC, Semi-Volatile	ng/k	53.7 J			-		Ι.	107.5 J	0	0	4.24 J	- 1	- 1	-	0	. 1	-	0	-	-	0.5 J	-		0.28 J	15.97 J	-		-	110.8 J	. 1	. 1	- T	362.2 J	78.3 J	==
	ng/k	5.2 J	-	-	-		-	13.8 J	0	0	0.38 J	-	-	-	0	-	-	0	-	-	0	-	-	0	4.85 J	-	-	-	22.9 J	-	-	-		24.3 J	-
GC Semi-volatiles (NJDEP EPH)																																			
EPH (C9-C28)	ng/k	-	3520	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPH (>C28-C40)	ng/k	•	ND (47)	-	-		-		-	-	-	-	-		-			-	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-
Total EPH (C9-C40) C10-C12 Aromatics	ng/k -	-	3520	111	-	-	-	-	-	-	-	- ND (0.14)	-	-	-	-	-	-	-	-	-	-	-	-	-	- ND (0.13)	-	-	-	-	-		-	-	-
C12-C16 Aromatics	1 g /k	-	-	585	-		-	-	-	-		ND (0.22)	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (0.21)	-	-	-	-	-	-	-	-	-
C16-C21 Aromatics	ng/k 	-	-	923	-	•	-	-	-	-		ND (0.47)	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (0.44)	-	-	-	-	-	-	-	-	-
C21-C36 Aromatics	ng/k	-	-	105 1720	-	-	-	-	-	-		ND (0.57) ND (0.14)	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (0.54) ND (0.13)	-	-	-	-	-	-	-	-	-
C9-C12 Aliphatics	19/K		-	116	-		-		-	-		ND (0.14)	-		-	-		-	-		-	-	-	-	-	91.8	-	-	-	-	-	-		-	-
C12-C16 Aliphatics	ng/k 		-	654	-	-	-	-	-	-		ND (0.13)	-		-	-	-	-	-	-	-	-	-	-	-	ND (0.12)	-	-	-	-	-	-	-	-	-
C16-C21 Aliphatics	ng/k	-	-	597	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (0.22)	-	-	-	-	-	-	-	-	-
C21-C40 Aliphatics	19/K	-	-	202 1570	-	-	-	-	-	-	-	60 74.1	-	-	-	-	-	-	-	-	-	-	-	-	-	70.2 162	-	-	-	-	-	-	-	-	-
Total EPH	ng/k -	-	-	3290	-		-	-	-	-	-	74.1	-	-	-	-	-	-	-	-	-	-	-	-	-	162	-	-	-	-	-	-	-	-	-
GC Semi-volatiles (SW846 8082A)																																		
Aroclor 1016	ng/k 1	-	-	-	-	-	-	-	-	ND (0.012)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1221	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	-	-	-	-	-	-	-	ND (0.022)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1232 Aroclor 1242	19/K 1		-	-	-	-	-	-	-	ND (0.012) ND (0.017)	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
Aroclor 1248	ng/k 1		-	-	-		-	-	-	ND (0.011)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1254	19/K 1	-	-	-	-	-	-	-	-	ND (0.017)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATOCIOI 1200	19/K 1	-	-	-	-	-	-	-	-	ND (0.016) ND (0.012)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ng/k 1		-	-	-	-	-	-	-	ND (0.012)	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals Analysis		_					<u>. </u>				-	<u>'</u>	<u> </u>		· · · · ·	<u> </u>									· ·		<u> </u>	<u> </u>	<u>'</u>	•	•		·	<u> </u>	
Aluminum	ng/k NA	9920	-	-	-	-	-	5840	5890	5100	13300	-	-	-	10000	-	-	12000	-	-	14900	-	-	5990	9840	-	-	-	4800	-	-	-	4680	7650	-
Antimony	ng/k 450	<2.3	-	-	-	•	-	<2.2	<2.4	<2.4	<2.5	-	-	-	<2.3	-	-	<2.4	-	-	<2.5	-	-	<2.3	<2.2	-	-	-	<2.1	-	-	-	<2.2	<2.3	-
	19 19/K 19 19/K 59000	4.8 80.6	-	-	-	-	-	3 49.5	<2.4 43	<2.4 42.3	6.4 95.2	-	-	-	6.8 335	-	-	9.3 84.8	-	-	7.7 106	-	-	<2.3 50.5	4.8 68.7	-	-	-	5.1 <21	-	-	-	5.1 25.6	77.8	-
Bervlium	1g/k 140	0.6	-	-	-	-	-	0.33	0.38	0.33	1.4	-	-	-	0.91	-		1	-	-	0.99	-	-	0.41	0.92	-	-	-	0.32	-	-	-	0.33	0.51	-
Caumum	ng/k 78	<0.58	-	-	-		-	<0.55	<0.61	<0.60	<0.63	-	-	-	<0.58	-	-	<0.60	-	-	<0.64	-	-	<0.57	<0.54	-	-	-	<0.53	-	-	-	<0.56	<0.58	-
	ng/k	9000	-	-	-	-	-	1150 11	1080 17.2	1200 10.2	3880 25.4	-	-	-	1520 22.6	-	-	1510 24.9	-	-	1070 30.1	-	-	788 9.8	3020 31.3	-	-	-	3770 20.6	-	-	-	759 14.2	1070 15.1	-
Chromium, Hexavalent	19/K	-	-	-	<0.45		ND (0.43)	-	-	-	-	-	<0.48	<0.48	-	<0.47	<0.47	-	0.82	<0.49	-	0.56	0.71	-	-	-	<0.44	0.61	-	<0.43	<0.43	-	-	-	-
Cobalt	1g/k 590	8.5	-	-	-		-	5.6	<6.1	<6.0	11.9	-	-	-	10.9	-	-	15.1	-	-	11.2	-	-	<5.7	11.1	-	-	-	5.5	-	-	-	5.8	6.8	-
Copper	45000 ng/k	32.5	-	-	-	-	-	21.9	15.5	12.6	52.5	-	-	-	20.5	-	-	22.7	-	-	51.9	-	-	14.8	77.8	-	-	-	7.6	-	-	-	13.8	18	-
Lead	1g/K 800	18600 70.4	-	-	-		-	11700 4.8	15800 5	12300 5.3	26300 35.9	-	-		22700 10.3	-		26700 13.9	-		30100 14.7	-	-	10900 4.2	20500 87.8	-	-	-	17800 11.7	-	-	-	17800 11.6	14700 7.7	-
	ng/k -	3960	-	-	-		-	3150	2790	2250	5020	-	-	-	4840	-	-	6120	-	-	6240	-	-	2080	4330	-	-	-	2100	-	-	-	2480	3360	-
Manganese	19/K 5900	296	-	-	-	-	-	471	299	246	420	-	-	-	477	-	-	735	-	-	322	-	-	307	352	-	-	-	111	-	-	-	126	452	-
ivicioury	19/K 65 19/K 23000	0.093 21.8	-	-	-	-	-	<0.035 11.7	<0.039	<0.035 9.1	<0.037 27.7	-	-		<0.034 23	-	-	<0.036 29.2	-		<0.037 26.8	-	-	<0.035 10.3	0.061 30.4	-	-	-	<0.034 12.1	-	-	-	0.054 12.9	<0.038 15.8	-
	ng/k -	1570	-	-	-	-	-	<1100	<1200	<1200	2340	-	-	-	2170	-	-	2480	-	-	2870	-	-	<1100	1450	-	-	-	<1100	-	-	-	<1100	1530	-
Selenium	19/K 5700	<2.3	-	-	-	-	-	<2.2	<2.4	<2.4	<2.5	-	-	-	<2.3	-	-	<2.4	-	-	<2.5	-	-	<2.3	<2.2	-	-	-	<2.1	-	-	-	<2.2	<2.3	-
Silver "	19/K 5700	<0.58 <1200	-	-	-	-	-	<0.55 <1100	<0.61 <1200	0.64 <1200	<0.63 <1300	-	-	-	<0.58 <1200	-	-	<0.60 <1200	-	-	<0.64 <1300	-	-	<0.57 <1100	<0.54 <1100	-	-	-	<0.53 <1100	-	-	-	<0.56 <1100	<0.58 <1200	-
Thallium	ng/k 79	<1.2	-	-	-	-	-	<1.1	<1.2	<1.2	<1.3	-	-	-	<1.2	-	-	<1.2	-		<1.3	-	-	<1.1	<1.1	-	-	-	<1.1	-	-	-	<1.1	<1.2	-
	1100	24.6	-	-	-	-	-	19.5	29.8	19.8	35.2	-	-	-	29.4	-	-	37	-	-	36.8	-	-	16.4	32.1	-	-	-	17.2	-	-	-		23.9	-
Zinc	ng/k 110000	221	-	-	-	-	-	25.1	33	22.1	318	-	-	-	48.2	-	-	56.5	-	-	62.9	-	-	21	276	-	-	-	40.6	-	-	-	36	32.2	-
General Chemistry				-								т	т			T			,					1						T	Г	-			
Iron, Ferrous	% - mv -	-	-	-	479	0.65 °	67.5	-	-	-	-	-	482	-	-	- 523	-	-	- 523	-	-	- 547	0.29 °	-	-	-	- 528	-	-	- 524	0.79 °	-	-		-
Podov Potortiel Val III			1 -	-	4/9	-	67.5	-	-	-	-	-	482	-	85.7	523	-	82.4	523	-	81	547	-	- 87	90.6	-	528	-	92.9	524	-	-	- 00.4	87.3	84.6
	% -	89.1	-	-	-	-	92.5	88.9	82.9	-	82.9	-	- 1	-	03.7		-	02.4	- 1	-				07			-	-	32.3		-	90.8	88.1		
Solids, Percent Sulfide Screen	% -	89.1	-	-	-	- NEGATIVE ^d		88.9	82.9	-	82.9	-	-	-	-	-	-	-	-	-	-		NEGATIVE d	-	-	-	-	-	-		NEGATIVE d	90.8	- 88.1		-
Solids, Percent Sulfide Screen Total Organic Carbon				-	- - 9.45																-			-			7.49			-					-

Mil results in mg/kg unless otherwise noted.

| Indigrams per klogram mg/k | Estimated Value | J | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Detected | Not Observed | Not Cheeted | Not Observed | No

Client Sample ID:		NJ Non-	MEA-SS-1	MEA-SS-1	MEA-SS-2	MEA-SS-2
Lab Sample ID:		Residential Direct Contact	JB99097-1	JB99097-1R	JB99097-2	JB99097-2R
Date Sampled:		Soil	7/14/2015	7/14/2015	7/14/2015	7/14/2015
Matrix:			Soil	Soil	Soil	Soil
Depth:			6.5-7.0 ft	6.5-7.0 ft	7.0-7.5 ft	7.0-7.5 ft
GC/MS Volatiles (SW846 8260C	:)					
Acetone	mg/kg	NA	0.0441	_	ND (0.12)	-
Benzene	mg/kg	5	ND (0.00015)	-	ND (0.0074)	-
Bromochloromethane	mg/kg	-	ND (0.00034)	-	ND (0.017)	-
Bromodichloromethane	mg/kg	3	ND (0.00017)	-	ND (0.0086)	-
Bromoform	mg/kg	280	ND (0.00026)	-	ND (0.013)	-
Bromomethane	mg/kg	59	ND (0.00041)	-	ND (0.020)	-
2-Butanone (MEK)	mg/kg	44000	0.0147	-	ND (0.11)	ı
Carbon disulfide	mg/kg	110000	0.0036	-	ND (0.013)	-
Carbon tetrachloride	mg/kg	2	ND (0.00026)	-	ND (0.013)	-
Chlorobenzene	mg/kg	7400	ND (0.00017)	-	ND (0.0086)	-
Chloroethane	mg/kg	1100	ND (0.00054)	-	ND (0.027)	,
Chloroform	mg/kg	2	ND (0.00017)	-	ND (0.0082)	-
Chloromethane	mg/kg	12	ND (0.00029)	-	ND (0.014)	-
Cyclohexane	mg/kg	0.2	ND (0.00035)	-	ND (0.017)	-
1,2-Dibromo-3-chloropropane	mg/kg	8	ND (0.00061)	-	ND (0.030)	-
Dibromochloromethane	mg/kg	0.04	ND (0.00023)	-	ND (0.011) ND (0.0072)	-
1,2-Dibromoethane	mg/kg mg/kg	59000	ND (0.00015) ND (0.00014)	-	ND (0.0072)	-
1,2-Dichlorobenzene 1.3-Dichlorobenzene	mg/kg	59000	ND (0.00014)		ND (0.0007)	-
1.4-Dichlorobenzene	mg/kg	13	ND (0.00016)		ND (0.0007)	-
Dichlorodifluoromethane	mg/kg	230000	ND (0.00040)	-	ND (0.020)	-
1,1-Dichloroethane	mg/kg	24	ND (0.00016)	-	ND (0.0078)	-
1,2-Dichloroethane	mg/kg	3	ND (0.00015)	-	ND (0.0074)	-
1,1-Dichloroethene	mg/kg	150	ND (0.00066)	-	ND (0.033)	-
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00087)	-	ND (0.043)	-
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00066)	-	ND (0.033)	-
1,2-Dichloropropane	mg/kg	5	ND (0.00027)	-	ND (0.013)	ı
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00013)	-	ND (0.0065)	-
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00020)	-	ND (0.0098)	-
Ethylbenzene	mg/kg	110000	ND (0.00018)	-	ND (0.0090)	-
Freon 113	mg/kg	-	ND (0.00050)	-	ND (0.025)	-
2-Hexanone	mg/kg	-	ND (0.0015)	-	ND (0.074)	-
Isopropylbenzene	mg/kg	-	ND (0.00012)	-	0.179	-
Methyl Acetate	mg/kg	NA	ND (0.00096)	-	ND (0.048) 0.0429 J	-
Methylcyclohexane	mg/kg mg/kg	320	ND (0.00025) ND (0.00017)	-	ND (0.0085)	-
Methyl Tert Butyl Ether		320	, ,		ND (0.0083)	-
4-Methyl-2-pentanone(MIBK) Methylene chloride	mg/kg mg/kg	97	ND (0.00051) ND (0.0011)		ND (0.023)	-
Styrene	mg/kg	260	ND (0.00020)		ND (0.0098)	
Tert Butyl Alcohol	mg/kg	11000	ND (0.0030)	-	ND (0.15)	-
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00020)	-	ND (0.0097)	-
Tetrachloroethene	mg/kg	5	ND (0.00034)	-	ND (0.017)	-
Toluene	mg/kg	91000	0.00028 J	-	ND (0.011)	-
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00020)	-	ND (0.0097)	-
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00019)	-	ND (0.0093)	-
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00017)	-	ND (0.0082)	-
1,1,2-Trichloroethane	mg/kg	6	ND (0.00016)	-	ND (0.0081)	-
Trichloroethene	mg/kg	20	ND (0.00016)	-	ND (0.0081)	-
Trichlorofluoromethane	mg/kg	340000	ND (0.00028)	-	ND (0.014)	
Vinyl chloride	mg/kg	2	ND (0.00022)	-	ND (0.011)	-
m,p-Xylene	mg/kg	170000	ND (0.00039)	-	ND (0.019)	-
o-Xylene	mg/kg	170000	ND (0.00031)	-	ND (0.015)	-
Xylene (total)	mg/kg	170000	ND (0.00031)	-	ND (0.015)	-
GC/MS Volatile TIC						
Total TIC, Volatile	mg/kg	-	0.018 J	-	105.1 J	-

Client Sample ID:		NJ Non-	MEA-SS-1	MEA-SS-1	MEA-SS-2	MEA-SS-2
Lab Sample ID:		Residential Direct Contact	JB99097-1	JB99097-1R	JB99097-2	JB99097-2R
Date Sampled:		Soil	7/14/2015	7/14/2015	7/14/2015	7/14/2015
Matrix:			Soil	Soil	Soil	Soil
Depth:			6.5-7.0 ft	6.5-7.0 ft	7.0-7.5 ft	7.0-7.5 ft
GC/MS Semi-volatiles (SW846	8270D)					
2-Chlorophenol	mg/kg	2200	ND (0.075)	-	ND (0.074)	-
4-Chloro-3-methyl phenol	mg/kg	-	ND (0.19)	-	ND (0.19)	-
2,4-Dichlorophenol	mg/kg	2100	ND (0.19)	-	ND (0.19)	-
2,4-Dimethylphenol 2.4-Dinitrophenol	mg/kg mg/kg	14000 1400	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	-
4,6-Dinitro-o-cresol	mg/kg	68	ND (0.19)	-	ND (0.19)	-
2-Methylphenol	mg/kg	3400	ND (0.075)	-	ND (0.074)	-
3&4-Methylphenol	mg/kg	-	ND (0.075)	-	ND (0.074)	-
2-Nitrophenol 4-Nitrophenol	mg/kg mg/kg	-	ND (0.19) ND (0.38)	-	ND (0.19) ND (0.37)	-
Pentachlorophenol	mg/kg	10	ND (0.19)	-	ND (0.19)	-
Phenol	mg/kg	210000	ND (0.075)	-	ND (0.074)	-
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	mg/kg	68000	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	-
2,4,5-Trichlorophenol	mg/kg mg/kg	74	ND (0.19)	-	ND (0.19)	-
Acenaphthene	mg/kg	37000	0.0408	-	0.546	-
Acenaphthylene	mg/kg	300000	ND (0.038)	-	ND (0.037)	-
Acetophenone Anthracene	mg/kg mg/kg	5 30000	ND (0.19) 0.0177 J	-	ND (0.19) ND (0.037)	-
Atrazine	mg/kg	2400	ND (0.075)	-	ND (0.037)	-
Benzo(a)anthracene	mg/kg	2	0.0206 J	-	ND (0.037)	-
Benzo(a)pyrene	mg/kg	0.2	0.0150 J	-	ND (0.037)	-
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	0.0236 J ND (0.038)	-	ND (0.037) ND (0.037)	-
Benzo(k)fluoranthene	mg/kg	23	ND (0.038)	-	ND (0.037)	-
4-Bromophenyl phenyl ether	mg/kg	-	ND (0.075)	-	ND (0.074)	-
Butyl benzyl phthalate	mg/kg	14000	ND (0.075)	-	ND (0.074)	-
1,1'-Biphenyl Benzaldehyde	mg/kg mg/kg	34000 68000	0.0160 J ND (0.19)	-	0.123 ND (0.19)	-
2-Chloronaphthalene	mg/kg	-	ND (0.075)	-	ND (0.074)	-
4-Chloroaniline	mg/kg	-	ND (0.19)	-	ND (0.19)	-
Carbazole Caprolactam	mg/kg mg/kg	96 340000	0.0275 J ND (0.075)	-	ND (0.074) ND (0.074)	-
Chrysene	mg/kg	230	0.0225 J	-	ND (0.037)	-
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.075)	-	ND (0.074)	-
bis(2-Chloroethyl)ether	mg/kg	2	ND (0.075)	-	ND (0.074)	-
bis(2-Chloroisopropyl)ether 4-Chlorophenyl phenyl ether	mg/kg mg/kg	67	ND (0.075) ND (0.075)	-	ND (0.074) ND (0.074)	-
2,4-Dinitrotoluene	mg/kg	3	ND (0.038)	-	ND (0.037)	-
2,6-Dinitrotoluene	mg/kg	3	ND (0.038)	-	ND (0.037)	-
3,3'-Dichlorobenzidine	mg/kg	4	ND (0.075)	-	ND (0.074)	-
1,4-Dioxane Dibenzo(a,h)anthracene	mg/kg mg/kg	0.2	ND (0.038) ND (0.038)	-	ND (0.037) ND (0.037)	-
Dibenzofuran	mg/kg	-	0.0225 J	-	0.295	-
Di-n-butyl phthalate	mg/kg	68000	ND (0.075)	-	ND (0.074)	-
Di-n-octyl phthalate Diethyl phthalate	mg/kg mg/kg	27000 550000	ND (0.075) ND (0.075)	-	ND (0.074) ND (0.074)	-
Dimethyl phthalate	mg/kg	-	ND (0.075)	-	ND (0.074)	-
bis(2-Ethylhexyl)phthalate	mg/kg	140	0.135	-	ND (0.074)	-
Fluoranthene	mg/kg	24000	0.0443	-	0.0392	-
Fluorene Hexachlorobenzene	mg/kg mg/kg	24000 1	0.0547 ND (0.075)	-	1.12 ND (0.074)	-
Hexachlorobutadiene	mg/kg	25	ND (0.073)	-	ND (0.074)	-
Hexachlorocyclopentadiene	mg/kg	110	ND (0.38)	-	ND (0.37)	-
Hexachloroethane Indeno(1,2,3-cd)pyrene	mg/kg	140 2	ND (0.19)	-	ND (0.19) ND (0.037)	-
Isophorone	mg/kg mg/kg	2000	ND (0.038) ND (0.075)	-	ND (0.037) ND (0.074)	-
2-Methylnaphthalene	mg/kg	2400	0.0651 J	-	ND (0.074)	-
2-Nitroaniline	mg/kg	23000	ND (0.19)	-	ND (0.19)	-
3-Nitroaniline 4-Nitroaniline	mg/kg mg/kg	-	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	-
Naphthalene	mg/kg	17	0.0210 J	-	ND (0.19) ND (0.037)	-
Nitrobenzene	mg/kg	340	ND (0.075)	-	ND (0.074)	-
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND (0.075)	-	ND (0.074)	-
N-Nitrosodiphenylamine Phenanthrene	mg/kg mg/kg	390 300000	ND (0.19) 0.0815	-	ND (0.19) 0.335	-
Pyrene	mg/kg	18000	0.0415	-	0.075	-
1,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.19)	-	ND (0.19)	-
GC/MS Semi-volatile TIC						
Total TIC, Semi-Volatile	mg/kg	-	2.93 J	-	44.65 J	-
Total Alkanes	mg/kg	-	0.81 J	-	3.8 J	-
	5 5					l

Table 4-1
Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Sample Results - AOC-26 - Former D-1104 MEA Sump

Client Sample ID:		NJ Non- Residential	MEA-SS-1	MEA-SS-1	MEA-SS-2	MEA-SS-2
Lab Sample ID:		Direct Contact	JB99097-1	JB99097-1R	JB99097-2	JB99097-2R
Date Sampled:		Soil	7/14/2015	7/14/2015	7/14/2015	7/14/2015
Matrix:			Soil	Soil	Soil	Soil
Depth:			6.5-7.0 ft	6.5-7.0 ft	7.0-7.5 ft	7.0-7.5 ft
Metals Analysis						
Aluminum	mg/kg	NA	6090	_	10400	-
Antimony	mg/kg	450	<2.3	-	<2.4	
Arsenic	mg/kg	19	10.1	-	5.9	-
Barium	mg/kg	59000	59	-	84.7	-
Beryllium	mg/kg	140	5.8	-	0.86	-
Cadmium	mg/kg	78	<0.56	-	<0.59	-
Calcium	mg/kg	-	5720	-	4240	-
Chromium	mg/kg	-	23.8	-	23.3	_
Chromium, Hexavalent	mg/kg	-	-	<0.46	-	<0.47
Cobalt	mg/kg	590	19	-	10	-
Copper	mg/kg	45000	434	-	26.8	-
Iron	mg/kg	-	27000	-	21100	-
Lead	mg/kg	800	261	-	10.5	-
Magnesium	mg/kg	-	2320	-	5440	-
Manganese	mg/kg	5900	630	-	244	-
Mercury	mg/kg	65	0.085	-	<0.036	-
Nickel	mg/kg	23000	115	-	23.1	-
Potassium	mg/kg	-	<1100	-	2800	_
Selenium	mg/kg	5700	<2.3	-	<2.4	-
Silver	mg/kg	5700	0.86	-	<0.59	-
Sodium	mg/kg	-	<1100	-	1250	_
Sulfur	mg/kg	-	-	-	-	-
Thallium	mg/kg	79	<1.1	-	<1.2	-
Vanadium	mg/kg	1100	21.1	-	29.1	-
Zinc	mg/kg	110000	3540	-	50.7	-
General Chemistry						
Redox Potential Vs H2	mv	-	-	549	-	553
Solids, Percent	%		86.2	-	85.8	_
,			8.78	8.5	9.4	9.03

All results in mg/kg unless otherwis	se noted. milligra	ms per kilogram	mg/kg
	1	Estimated Value	J
		Not Sampled	NS
E	Exceeds NJDEP Non-Residential Soil Remediation Standa	Not Detected	ND
		Not Analyzed	NA
	Method	Detection Limit	()
	Compound	Found in Blank	В
	Health based standard defaults to so	il saturation limit	**
	Resul	t is from 2nd run	a b

Table 4-1

Former Hess Port Reading

750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results - AOC-27 - EADC Disposal Pit

Client Sample ID:		NJ Non- Residential	EAVC-SS-1	EAVC-SS-2	EAVC-SS-2	EAVC-SS-3
Lab Sample ID:		Direct Contact	JB98904-13	JB98904-14	JB98904-14T	JB98904-15
Date Sampled:		Soil	7/9/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil
Depth:			9.0-9.5 ft	9.0-9.5 ft	9.0-9.5 ft	9.0-9.5 ft
GC/MS Volatiles (SW846 8260C)					
·	1	I NIA	0.0470	ND (0.0004)		0.0607
Acetone	mg/kg	NA F	0.0179 ND (0.00013)	ND (0.0021) ND (0.00012)	-	
Benzene	mg/kg	5	ND (0.00013)	ND (0.00012)	-	0.00033 J ND (0.00037)
Bromochloromethane	mg/kg	3	` ,	ND (0.00029)	-	ND (0.00037)
Bromodichloromethane	mg/kg mg/kg	280	ND (0.00015) ND (0.00023)	ND (0.00013)	-	ND (0.00019)
Bromoform	mg/kg	59	ND (0.00023)	ND (0.00022)	-	ND (0.00028)
Bromomethane		44000	ND (0.00036)	ND (0.00034)	-	ND (0.00044)
2-Butanone (MEK)	mg/kg mg/kg	110000	ND (0.0019)	0.00070 J		0.0021 J
Carbon disulfide Carbon tetrachloride	mg/kg	2	ND (0.00022)	ND (0.00022)		ND (0.00213
Chlorobenzene	mg/kg	7400	ND (0.00025)	ND (0.00022)		ND (0.00020)
Chloroethane	mg/kg	1100	ND (0.00047)	ND (0.00015)		ND (0.00018)
Chloroform	mg/kg	2	ND (0.00047)	ND (0.00043)		ND (0.00038)
Chloromethane	mg/kg	12	ND (0.00013)	ND (0.00014)		ND (0.00018)
-	mg/kg	-	ND (0.00020)	ND (0.00023)	-	ND (0.00032)
Cyclohexane 1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00051)	ND (0.00051)		ND (0.00056)
Dibromochloromethane	mg/kg	8	ND (0.00034)	ND (0.00031)	-	ND (0.00025)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00020)	ND (0.00013)	-	ND (0.00026)
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00012)	ND (0.00012)	_	ND (0.00015)
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00012)	ND (0.00011)	-	ND (0.00019)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00022)	ND (0.00021)	-	ND (0.00027)
Dichlorodifluoromethane	mg/kg	230000	ND (0.00036)	ND (0.00034)	_	ND (0.00043)
1,1-Dichloroethane	mg/kg	24	ND (0.00014)	ND (0.00013)	_	ND (0.00017)
1,2-Dichloroethane	mg/kg	3	ND (0.00013)	ND (0.00013)	_	ND (0.00016)
1,1-Dichloroethene	mg/kg	150	ND (0.00058)	ND (0.00056)	_	ND (0.00071)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00077)	ND (0.00073)	_	ND (0.00094)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00059)	ND (0.00056)	-	ND (0.00071)
1,2-Dichloropropane	mg/kg	5	ND (0.00023)	ND (0.00022)	-	ND (0.00029)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	ND (0.00011)	-	ND (0.00014)
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00017)	ND (0.00017)	-	ND (0.00021)
Ethylbenzene	mg/kg	110000	ND (0.00016)	ND (0.00015)	-	ND (0.00020)
Freon 113	mg/kg	-	ND (0.00044)	ND (0.00042)	-	ND (0.00054)
2-Hexanone	mg/kg	-	ND (0.0013)	ND (0.0013)	-	ND (0.0016)
Isopropylbenzene	mg/kg	-	ND (0.00010)	ND (0.00010)	-	ND (0.00013)
Methyl Acetate	mg/kg	NA	ND (0.00085)	ND (0.00081)	-	ND (0.0010)
Methylcyclohexane	mg/kg	-	ND (0.00022)	ND (0.00021)	-	ND (0.00027)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00015)	ND (0.00014)	-	ND (0.00018)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00045)	ND (0.00043)	-	ND (0.00055)
Methylene chloride	mg/kg	97	ND (0.00097)	ND (0.00092)	-	ND (0.0012)
Styrene	mg/kg	260	ND (0.00018)	ND (0.00017)	-	ND (0.00021)
Tert Butyl Alcohol	mg/kg	11000	ND (0.0026)	ND (0.0025)	-	ND (0.0032)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00017)	ND (0.00016)	-	ND (0.00021)
Tetrachloroethene	mg/kg	5	ND (0.00030)	ND (0.00028)	-	ND (0.00036)
Toluene	mg/kg	91000	ND (0.00021)	ND (0.00020)	-	ND (0.00025)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00017)	ND (0.00017)	-	ND (0.00021)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00017)	ND (0.00016)	-	ND (0.00020)
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00015)	ND (0.00014)	-	ND (0.00018)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00014)	ND (0.00014)	-	ND (0.00018)
Trichloroethene	mg/kg	20	ND (0.00014)	ND (0.00014)	-	ND (0.00018)
Trichlorofluoromethane	mg/kg	340000	ND (0.00025)	ND (0.00023)	-	ND (0.00030)
Vinyl chloride	mg/kg	2	ND (0.00019)	ND (0.00019)	-	ND (0.00024)
m,p-Xylene	mg/kg	170000	ND (0.00035)	ND (0.00033)	-	ND (0.00042)
o-Xylene	mg/kg	170000	ND (0.00027)	ND (0.00026)	-	ND (0.00033)
Xylene (total)	mg/kg	170000	ND (0.00027)	ND (0.00026)	-	ND (0.00033)

Table 4-1

Former Hess Port Reading

750 Cliff Road, Port Reading, New Jersey

Summary of Soil Sample Results - AOC-27 - EADC Disposal Pit

Client Sample ID:		NJ Non-	EAVC-SS-1	EAVC-SS-2	EAVC-SS-2	EAVC-SS-3
Lab Sample ID:		Residential	JB98904-13	JB98904-14	JB98904-14T	JB98904-15
Date Sampled:		Direct Contact Soil	7/9/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil
Depth:			9.0-9.5 ft	9.0-9.5 ft	9.0-9.5 ft	9.0-9.5 ft
-						
GC/MS Volatile TIC						
Total TIC, Volatile	mg/kg	-	0.0061 J	0	-	0
Total Alkanes	mg/kg	-	0	0	-	0
GC/MS Semi-volatiles (SW846 8	R270D)					
·	•	1 0000	ND (0.070)	ND (0.077)		ND (0.000)
2-Chlorophenol 4-Chloro-3-methyl phenol	mg/kg mg/kg	2200	ND (0.076) ND (0.19)	ND (0.077) ND (0.19)	-	ND (0.082) ND (0.20)
2,4-Dichlorophenol	mg/kg	2100	ND (0.19)	ND (0.19)	-	ND (0.20)
2,4-Dimethylphenol	mg/kg	14000	ND (0.19)	ND (0.19)	-	ND (0.20)
2,4-Dinitrophenol	mg/kg	1400	ND (0.19)	ND (0.19)	-	ND (0.20)
4,6-Dinitro-o-cresol	mg/kg	68	ND (0.19)	ND (0.19)	-	ND (0.20)
2-Methylphenol	mg/kg	3400	ND (0.076)	ND (0.077)	-	ND (0.082)
3&4-Methylphenol	mg/kg	-	ND (0.076)	ND (0.077)	-	ND (0.082)
2-Nitrophenol 4-Nitrophenol	mg/kg mg/kg	-	ND (0.19) ND (0.38)	ND (0.19) ND (0.39)	<u>-</u>	ND (0.20) ND (0.41)
Pentachlorophenol	mg/kg	10	ND (0.36) ND (0.19)	ND (0.39) ND (0.19)	-	ND (0.41) ND (0.20)
Phenol	mg/kg	210000	ND (0.076)	ND (0.077)	-	ND (0.082)
2,3,4,6-Tetrachlorophenol	mg/kg	-	ND (0.19)	ND (0.19)	-	ND (0.20)
2,4,5-Trichlorophenol	mg/kg	68000	ND (0.19)	ND (0.19)	-	ND (0.20)
2,4,6-Trichlorophenol	mg/kg	74	ND (0.19)	ND (0.19)	-	ND (0.20)
Acenaphthene	mg/kg	37000	ND (0.038)	ND (0.039)	-	ND (0.041)
Acenaphthylene Acetophenone	mg/kg mg/kg	300000 5	ND (0.038) ND (0.19)	ND (0.039) ND (0.19)	-	ND (0.041) ND (0.20)
Anthracene	mg/kg	30000	ND (0.19)	ND (0.19)	-	ND (0.20)
Atrazine	mg/kg	2400	ND (0.076)	ND (0.077)	-	ND (0.082)
Benzo(a)anthracene	mg/kg	2	ND (0.038)	ND (0.039)	-	ND (0.041)
Benzo(a)pyrene	mg/kg	0.2	ND (0.038)	ND (0.039)	-	ND (0.041)
Benzo(b)fluoranthene	mg/kg	2	ND (0.038)	ND (0.039)	-	ND (0.041)
Benzo(g,h,i)perylene	mg/kg	30000	ND (0.038)	ND (0.039)	-	ND (0.041)
Benzo(k)fluoranthene 4-Bromophenyl phenyl ether	mg/kg	23	ND (0.038) ND (0.076)	ND (0.039) ND (0.077)	-	ND (0.041) ND (0.082)
Butyl benzyl phthalate	mg/kg mg/kg	14000	ND (0.076)	ND (0.077)	-	ND (0.082)
1,1'-Biphenyl	mg/kg	34000	ND (0.076)	ND (0.077)	-	ND (0.082)
Benzaldehyde	mg/kg	68000	ND (0.19)	ND (0.19)	-	ND (0.20)
2-Chloronaphthalene	mg/kg	-	ND (0.076)	ND (0.077)	-	ND (0.082)
4-Chloroaniline	mg/kg	-	ND (0.19)	ND (0.19)	-	ND (0.20)
Carbazole	mg/kg	96	ND (0.076)	ND (0.077)	-	ND (0.082)
Caprolactam Chrysene	mg/kg mg/kg	340000 230	ND (0.076) ND (0.038)	ND (0.077) ND (0.039)	-	ND (0.082) ND (0.041)
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.038)	ND (0.039)	-	ND (0.041)
bis(2-Chloroethyl)ether	mg/kg	2	ND (0.076)	ND (0.077)	-	ND (0.082)
bis(2-Chloroisopropyl)ether	mg/kg	67	ND (0.076)	ND (0.077)	-	ND (0.082)
4-Chlorophenyl phenyl ether	mg/kg	-	ND (0.076)	ND (0.077)	-	ND (0.082)
2,4-Dinitrotoluene	mg/kg	3	ND (0.038)	ND (0.039)	-	ND (0.041)
2,6-Dinitrotoluene	mg/kg	3 4	ND (0.038)	ND (0.039)	-	ND (0.041)
3,3'-Dichlorobenzidine 1,4-Dioxane	mg/kg mg/kg	-	ND (0.076) ND (0.038)	ND (0.077) ND (0.039)	<u>-</u> -	ND (0.082) ND (0.041)
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.038)	ND (0.039)	-	ND (0.041)
Dibenzofuran	mg/kg	-	ND (0.076)	ND (0.077)	-	ND (0.082)
Di-n-butyl phthalate	mg/kg	68000	ND (0.076)	ND (0.077)	-	ND (0.082)
Di-n-octyl phthalate	mg/kg	27000	ND (0.076)	ND (0.077)	-	ND (0.082)
Diethyl phthalate	mg/kg	550000	ND (0.076)	ND (0.077)	-	ND (0.082)
Dimethyl phthalate bis(2-Ethylhexyl)phthalate	mg/kg mg/kg	- 140	ND (0.076) ND (0.076)	ND (0.077) ND (0.077)	-	ND (0.082) ND (0.082)
Fluoranthene	mg/kg	24000	ND (0.078)	ND (0.077)	-	ND (0.041)
Fluorene	mg/kg	24000	ND (0.038)	ND (0.039)	-	ND (0.041)
Hexachlorobenzene	mg/kg	1	ND (0.076)	ND (0.077)	-	ND (0.082)
Hexachlorobutadiene	mg/kg	25	ND (0.038)	ND (0.039)	-	ND (0.041)
Hexachlorocyclopentadiene	mg/kg	110	ND (0.38)	ND (0.39)	-	ND (0.41)
Hexachloroethane Indeno(1,2,3-cd)pyrene	mg/kg mg/kg	140 2	ND (0.19) ND (0.038)	ND (0.19) ND (0.039)	-	ND (0.20) ND (0.041)
Isophorone	mg/kg	2000	ND (0.036) ND (0.076)	ND (0.039) ND (0.077)	-	ND (0.041) ND (0.082)
2-Methylnaphthalene	mg/kg	2400	ND (0.076)	ND (0.077)	-	ND (0.082)
2-Nitroaniline	mg/kg	23000	ND (0.19)	ND (0.19)	-	ND (0.20)
3-Nitroaniline	mg/kg	-	ND (0.19)	ND (0.19)	-	ND (0.20)
4-Nitroaniline	mg/kg	-	ND (0.19)	ND (0.19)	-	ND (0.20)
Naphthalene	mg/kg	17	ND (0.038)	ND (0.039)	-	ND (0.041)
Nitrobenzene N-Nitroso-di-n-propylamine	mg/kg mg/kg	340 0.3	ND (0.076) ND (0.076)	ND (0.077) ND (0.077)	-	ND (0.082) ND (0.082)
N-Nitrosodiphenylamine	mg/kg mg/kg	390	ND (0.076) ND (0.19)	ND (0.077) ND (0.19)	-	ND (0.082) ND (0.20)
Phenanthrene	mg/kg	300000	ND (0.038)	ND (0.039)	-	ND (0.041)
Pyrene			, ,	, ,		, ,
1,2,4,5-Tetrachlorobenzene	mg/kg	18000	ND (0.038) ND (0.19)	ND (0.039) ND (0.19)	-	ND (0.041) ND (0.20)

Table 4-1 Former Hess Port Reading 750 Cliff Road, Port Reading, New Jersey

Summary of Soil Sample Results - AOC-27 - EADC Disposal Pit

	NJ Non-	EAVC-SS-1	EAVC-SS-2	EAVC-SS-2	EAVC-SS-3
		JB98904-13	JB98904-14	JB98904-14T	JB98904-15
		7/9/2015	7/9/2015	7/9/2015	7/9/2015
	35	Soil	Soil	Soil	Soil
		9.0-9.5 ft	9.0-9.5 ft	9.0-9.5 ft	9.0-9.5 ft
mg/kg	-	0.76 J	0.64 J	-	2.99 J
mg/kg	-	0	0	-	0
H)					
mg/kg	-	ND (4.7)	ND (4.7)	_	33.7
	-	ND (4.7)	, ,	-	21.4
mg/kg	-	ND (4.7)	ND (4.7)	-	55.1
mg/kg	NA	6950	11300	-	10500
mg/kg	450	<2.5	<2.4	-	<2.4
mg/kg	19	<2.5	6.5	-	6.2
mg/kg	59000	26.6	130	-	61.2
mg/kg	140	0.26	1	-	0.54
mg/kg	78	<0.62	<0.60	-	<0.60
mg/kg	-	<620	1560	-	721
mg/kg	-	12.2	28.8	-	19.3
mg/kg	-	-	-	<0.47	-
mg/kg	590	<6.2	10.6	-	<6.0
mg/kg	45000	7.6	11.6	-	31
mg/kg	-	9930	31000	-	17900
mg/kg	800	6.1	13	-	60.2
mg/kg	-	1750	5430	-	3130
mg/kg	5900	65.4	537	-	154
mg/kg	65	<0.035	<0.038	-	0.12
mg/kg	23000	13.5	29.6	-	15.1
mg/kg	-	<1200	2510	-	1610
mg/kg	5700	<2.5	<2.4	-	<2.4
mg/kg	5700	<0.62	<0.60	-	<0.60
mg/kg	-	<1200	<1200	-	<1200
mg/kg	-	-	-	-	-
mg/kg	79	<1.2	<1.2	-	<1.2
mg/kg	1100	18.2	30.9	-	27.1
mg/kg	110000	21.8	60.2	-	50.4
mg/kg	-	6.7	<3.0	-	24
mv	-	-	-	536	-
%	-	84.5	84.5	-	79.9
1			6.28		
	mg/kg	Mg/kg	NJ Non-Residential Direct Contact Soil	NJ Non-Residential JB98904-13 JB98904-14 7/9/2015 7/9/2015 Soil Soil Soil 9.0-9.5 ft 9.0-	Mg/kg

All results in mg/kg unless otherwise	e noted. milligi	ams per kilogram	mg/kg
		Estimated Value	J
		Not Sampled	NS
E	Exceeds NJDEP Non-Residential Soil Remediation Standard	Not Detected	ND
		Not Analyzed	NA
	Metho	od Detection Limit	()
	Compour	nd Found in Blank	В
	Health based standard defaults to s	oil saturation limit	**
	Resi	ult is from 2nd run	a b

Table 4-1
Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results - AOC-28 - Cooling Water Tower

Client Sample ID:		NJ Non-	CT-SB-1 (2.0- 2.5)	CT-SB-2 (2.5- 3.0)	CT-SB-3 (5.5- 6.0)	CT-SB-4 (6.0- 6.5)	CT-SB-5 (6.0- 6.5)
Lab Sample ID:		Residential	JB62458-1	JB62458-2	JB62631-1	JB62458-3	JB62458-4
Date Sampled:		Direct Contact	3/19/2014	3/19/2014	3/21/2014	3/19/2014	3/20/2014
Sample Depth:		Soil	(2.0-5.0)	(2.5-3.0)	(5.5-6.0)	(6.0-6.5)	(6.0-6.5)
Matrix:			Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds	•			•			
Acetone	mg/kg	-	ND	0.0114	ND	ND	ND
Benzene	mg/kg	5	ND	ND	ND	ND	ND
2-Butanone	mg/kg	44,000	ND	ND	ND	ND	ND
Carbon Disulfide	mg/kg	110,000	ND	0.0015 J	ND	ND	ND
Chlorobenzene		7,400	ND	ND	ND	ND	ND
	mg/kg	2					
Chloroform	mg/kg	2	ND	ND	ND	0.0071	ND
Cyclohexane	mg/kg		ND	ND	ND	ND	ND
1,2 Dichlorbenzene	mg/kg	59,000	ND	ND	ND	ND	ND
1,4 Dichlorobenzene	mg/kg	13	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	mg/kg	560	ND	ND	ND	0.0016 J	ND
1,2-Dichloropropane	mg/kg	5	ND	ND	ND	0.0017 J	ND
Ethylbenzene	mg/kg	110,000	ND	ND	ND	ND	ND
Isopropylbenzene	mg/kg	-	ND	ND	ND	ND	ND
Methyl acetate	mg/kg	-	ND	ND	ND	ND	ND
Methylcyclohexane			ND	ND	ND	ND	ND
_ , ,	mg/kg	07				.	
Methylene chloride	mg/kg	97	ND	ND	ND	ND	0.0034 J
tertiary Butyl alcohol (TBA)	mg/kg	11,000	ND	ND	ND	ND	ND
Tetrachloroethene	mg/kg	5	ND	ND	ND	0.0024 J	ND
Toluene	mg/kg	91,000	ND	ND	ND	ND	ND
Total Xylene	mg/kg	170,000	ND	ND	ND	ND	ND
Total Volatile TICs	mg/kg	-	ND	ND	ND	ND	ND
Metals							
Aluminum	mg/kg	-	3,500	8,420	8,800	15,400	11,700
Antimony	mg/kg	450	<2.2	<2.5	<0.94	<2.3	<2.3
Arsenic	mg/kg	19^	7.6	5.8	6.9	3.4	6.4
Barium	mg/kg	59000	<22	41.9	178	233	140
Beryllium	mg/kg	140	0.44	0.69	1.3	1.1	1.4
Cadmium	mg/kg	78	<0.55	<0.63	<0.37	<0.57	<0.59
Calcium	mg/kg	-	678	662	775	2,260	2,300
Chromium	mg/kg	-	10.8	16.2	22.1	26.6	24.8
Cobalt	mg/kg	590	<5.5	6.7	14.5	12.7	11.0
Copper	mg/kg	45000	7.3	20.4	23.4	12.6	20.2
Iron	mg/kg	-	21,900	18,300	30,700	25,700	26,500
Lead	mg/kg	800	4.4	11.3	12.3	12.0	11.0
Magnesium	mg/kg	-	1,460	2,950	4,670	7,380	5,950
Manganese Mercury	mg/kg	5900	116 <0.035	184 <0.040	856 <0.038	523 <0.039	452 <0.037
Nickel	mg/kg	65	9.6	14.6	28.8	30.1	29.3
Potassium	mg/kg mg/kg	23000	<1,100	1,420	1,370	3,000	29.3
Selenium	mg/kg mg/kg	5700	<2.2	<2.5	<0.94	<2.3	<2.3
Silver	mg/kg	5700	0.77	0.75	<0.47	0.84	0.76
Sodium	mg/kg	-	<1,100	1,740	9,540	<1,100	<1,200
Thallium	mg/kg	79	<1.1	<1.3	<0.94	<1.1	<1.2
Vanadium	mg/kg	1100	18.4	20.5	26.7	26.9	32.6
Zinc	mg/kg	110000	43.1	47.6	75.2	69.7	57.5
Pesticides	ing/ng	110000	.3.1			33.1	
			NIA	l NA	NID	l NIA	NA
Pesticides	1	-	NA	NA	ND	NA	NA

All results in mg/kg unless otherwise noted.	milligrams per kilogram	mg/kg
	Estimated Value	J
	Not Sampled	NS
	Exceeds NJDEP Non-Residential Soil Remediation Standard Not Detected	ND
	Not Analyzed	NA
	Method Detection Limit	()
	Compound Found in Blank	В
	Health based standard defaults to soil saturation limit	**
	Result is from 2nd run	a b

Client Sample ID:		NJ Non-	CT-SS-6	CT-SS-6
Lab Sample ID:		Residential	JB99546-2	JB99546-2T
Date Sampled:		Direct Contact	7/20/2015	7/20/2015
Sample Depth:		Soil	5.5-6.0 ft	5.5-6.0 ft
Matrix:			Soil	Soil
GC/MS Volatiles (SW846 8	260C)			
Acetone	mg/kg	NA	0.0386	
Benzene	mg/kg	5	0.00058 J	_
Bromochloromethane	mg/kg	-	ND (0.0060)	_
Bromodichloromethane	mg/kg	3	ND (0.0024)	_
Bromoform	mg/kg	280	ND (0.0060)	_
Bromomethane	mg/kg	59	ND (0.0060)	
2-Butanone (MEK)	mg/kg	44000	ND (0.000)	_
Carbon disulfide	mg/kg	110000	0.0049	
Carbon tetrachloride	mg/kg	2	ND (0.0024)	
Chlorobenzene	mg/kg	7400	ND (0.0024)	_
Chloroethane	mg/kg	1100	ND (0.0060)	_
Chloroform	mg/kg	2	ND (0.0024)	_
Chloromethane	mg/kg	12	ND (0.0024)	
Cyclohexane	mg/kg		ND (0.0024)	
1,2-Dibromo-3-chloropropar		0.2	ND (0.0024)	
Dibromochloromethane	mg/kg	8	ND (0.0024)	
1.2-Dibromoethane	mg/kg	0.04	ND (0.0024)	
1.2-Dichlorobenzene	mg/kg	59000	ND (0.0012)	
	- 0	59000	ND (0.0012)	
1,3-Dichlorobenzene	mg/kg mg/kg	13	, ,	
1,4-Dichlorobenzene Dichlorodifluoromethane	- 0		ND (0.0012)	
	mg/kg	230000	ND (0.0060)	
1,1-Dichloroethane	mg/kg	24	ND (0.0012)	-
1,2-Dichloroethane	mg/kg	3	ND (0.0012)	
1,1-Dichloroethene	mg/kg	150	ND (0.0012)	-
cis-1,2-Dichloroethene	mg/kg	560	ND (0.0012)	
trans-1,2-Dichloroethene	mg/kg	720	ND (0.0012)	
1,2-Dichloropropane	mg/kg	5	ND (0.0024)	-
cis-1,3-Dichloropropene	mg/kg	7	ND (0.0024)	-
trans-1,3-Dichloropropene	mg/kg	7	ND (0.0024)	-
Ethylbenzene	mg/kg	110000	0.0326	-
Freon 113	mg/kg	-	ND (0.0060)	-
2-Hexanone	mg/kg	-	ND (0.0060)	-
Isopropylbenzene	mg/kg	-	0.00036 J	-
Methyl Acetate	mg/kg	NA	ND (0.0060)	-
Methylcyclohexane	mg/kg	-	ND (0.0024)	-
Methyl Tert Butyl Ether	mg/kg	320	ND (0.0012)	-
4-Methyl-2-pentanone(MIBK		-	0.0159	-
Methylene chloride	mg/kg	97	ND (0.0060)	-
Styrene	mg/kg	260	0.0031	-
Tert Butyl Alcohol	mg/kg	11000	ND (0.030)	-
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.0024)	-
Tetrachloroethene	mg/kg	5	ND (0.0024)	-
Toluene	mg/kg	91000	0.0069	-
1,2,3-Trichlorobenzene	mg/kg	_	ND (0.0060)	-
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.0060)	
1,1,1-Trichloroethane	mg/kg	4200	ND (0.0024)	
1,1,2-Trichloroethane	mg/kg	6	ND (0.0024)	
Trichloroethene	mg/kg	20	ND (0.0024)	-
Trichlorofluoromethane	mg/kg	340000	0.0012 J	
Vinyl chloride	mg/kg	2	ND (0.0024)	
m,p-Xylene		170000	0.119	
o-Xylene	mg/kg	170000	0.119	
Xylene (total)	mg/kg mg/kg	170000	0.136	
	y/ky	17 0000	0.100	
GC/MS Volatile TIC				
Total TIC, Volatile	mg/kg		0	
rotal HO, voidlie	g/kg			
Total Alkanes	mg/kg	_	0	_

Client Sample ID:		NJ Non-	CT-SS-6 JB99546-2	CT-SS-6
Lab Sample ID:		Residential	JB99546-2 7/20/2015	JB99546-2T 7/20/2015
Date Sampled: Sample Depth:		Direct Contact	5.5-6.0 ft	5.5-6.0 ft
Matrix:		Soil	Soil	Soil
GC/MS Semi-volatiles (SW	846 827	0D)		
2-Chlorophenol	mg/kg	2200	ND (0.076)	
4-Chloro-3-methyl phenol	mg/kg	-	ND (0.070)	
2,4-Dichlorophenol	mg/kg	2100	ND (0.19)	-
2,4-Dimethylphenol	mg/kg	14000	ND (0.19)	-
2,4-Dinitrophenol	mg/kg	1400	ND (0.19)	-
4,6-Dinitro-o-cresol 2-Methylphenol	mg/kg	68 3400	ND (0.19) ND (0.076)	
3&4-Methylphenol	mg/kg mg/kg	-	ND (0.076)	
2-Nitrophenol	mg/kg	-	ND (0.19)	-
4-Nitrophenol	mg/kg	-	ND (0.38)	-
Pentachlorophenol	mg/kg	10	ND (0.19)	-
Phenol	mg/kg	210000	ND (0.076)	<u> </u>
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	mg/kg mg/kg	68000	ND (0.19) ND (0.19)	
2,4,6-Trichlorophenol	mg/kg	74	ND (0.19)	
Acenaphthene	mg/kg	37000	ND (0.038)	-
Acenaphthylene	mg/kg	300000	ND (0.038)	-
Acetophenone	mg/kg	5	ND (0.19)	-
Anthracene	mg/kg	30000	0.0200 J	<u> </u>
Atrazine Benzo(a)anthracene	mg/kg mg/kg	2400	ND (0.076) 0.0414	
Benzo(a)pyrene	mg/kg	0.2	0.0366 J	-
Benzo(b)fluoranthene	mg/kg	2	0.0394	-
Benzo(g,h,i)perylene	mg/kg	30000	0.0381	-
Benzo(k)fluoranthene	mg/kg	23	0.0172 J	-
4-Bromophenyl phenyl ether		-	ND (0.076)	-
Butyl benzyl phthalate 1,1'-Biphenyl	mg/kg	14000	0.388 ND (0.076)	-
Benzaldehyde	mg/kg mg/kg	34000 68000	ND (0.076) ND (0.19)	
2-Chloronaphthalene	mg/kg	-	ND (0.076)	_
4-Chloroaniline	mg/kg	-	ND (0.19)	-
Carbazole	mg/kg	96	ND (0.076)	-
Caprolactam	mg/kg	340000	ND (0.076)	-
Chrysene	mg/kg	230	0.0582	-
bis(2-Chloroethoxy)methane		-	ND (0.076)	-
bis(2-Chloroethyl)ether bis(2-Chloroisopropyl)ether	mg/kg	2 67	ND (0.076)	-
4-Chlorophenyl phenyl ether	mg/kg mg/kg	-	ND (0.076) ND (0.076)	
2,4-Dinitrotoluene	mg/kg	3	ND (0.038)	-
2,6-Dinitrotoluene	mg/kg	3	ND (0.038)	-
3,3'-Dichlorobenzidine	mg/kg	4	ND (0.076)	-
1,4-Dioxane	mg/kg	-	ND (0.038)	-
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.038)	-
Dibenzofuran Di-n-butyl phthalate	mg/kg	68000	ND (0.076) ND (0.076)	
Di-n-butyl phthalate	mg/kg mg/kg	27000	ND (0.076)	-
Diethyl phthalate	mg/kg	550000	ND (0.076)	-
Dimethyl phthalate	mg/kg	-	ND (0.076)	
bis(2-Ethylhexyl)phthalate	mg/kg	140	0.474	-
Fluoranthene	mg/kg	24000	0.082	-
Fluorene	mg/kg	24000	ND (0.038)	-
Hexachlorobenzene Hexachlorobutadiene	mg/kg mg/kg	1 25	ND (0.076) ND (0.038)	
Hexachlorocyclopentadiene	mg/kg mg/kg	110	ND (0.038)	
Hexachloroethane	mg/kg	140	ND (0.19)	-
Indeno(1,2,3-cd)pyrene	mg/kg	2	0.0309 J	-
sophorone	mg/kg	2000	ND (0.076)	-
2-Methylnaphthalene	mg/kg	2400	0.0464 J	-
2-Nitroaniline	mg/kg	23000	ND (0.19)	
3-Nitroaniline 4-Nitroaniline	mg/kg mg/kg	-	ND (0.19) ND (0.19)	-
Naphthalene	mg/kg	17	0.0403	-
Nitrobenzene	mg/kg	340	ND (0.076)	-
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND (0.076)	-
N-Nitrosodiphenylamine	mg/kg	390	ND (0.19)	-
Phenanthrene	mg/kg	300000	0.134	-
Pyrene	mg/kg	18000	0.0989	-
1,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.19)	-
GC/MS Semi-volatile TIC				
Total TIC, Semi-Volatile	mg/kg	-	4.08 J	-
	mg/kg		0.51 J	

Table 4-1 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results - AOC-28 - Cooling Water Tower

Client Sample ID:			CT-SS-6	CT-SS-6
Lab Sample ID:		NJ Non-	JB99546-2	JB99546-2T
Date Sampled:		Residential Direct Contact	7/20/2015	7/20/2015
Sample Depth:		Soil	5.5-6.0 ft	5.5-6.0 ft
Matrix:			Soil	Soil
Metals Analysis				
•			0050	
Aluminum	mg/kg	NA 450	6950	
Antimony	mg/kg	450	ND (2.4)	
Arsenic	mg/kg	19	2.9	-
Barium	mg/kg	59000	65.5	
Beryllium	mg/kg	140	0.27	-
Cadmium	mg/kg	78	ND (0.59)	-
Calcium	mg/kg	-	72800	-
Chromium	mg/kg	-	24.5	-
Chromium, Hexavalent	mg/kg	-	-	1.9
Cobalt	mg/kg	590	ND (5.9)	-
Copper	mg/kg	45000	51.8	-
Iron	mg/kg	-	12800	-
Lead	mg/kg	800	56.7	-
Magnesium	mg/kg	-	5280	-
Manganese	mg/kg	5900	160	-
Mercury	mg/kg	65	0.053	-
Nickel	mg/kg	23000	192	-
Potassium	mg/kg	_	ND (1200)	-
Selenium	mg/kg	5700	ND (2.4)	-
Silver	mg/kg	5700	ND (0.59)	-
Sodium	mg/kg	-	ND (1200)	-
Thallium	mg/kg	79	ND (1.2)	-
Vanadium	mg/kg	1100	17.5	-
Zinc	mg/kg	110000	343	-
General Chemistry				
Redox Potential Vs H2	mv	-	_	384
Solids, Percent	%	_	83.8	
рН	su	_	11.57	11.65

All results in mg/kg unle	ess otherwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
а	Elevated detection limit due to dilution required for high interfering element.

Client Sample ID:			SP-SB-1 (10.0-10.5)	SP-SB-2 (9.0- 9.5)	SP-SB-3 (5.0- 5.5)	SP-SB-4 (2.0- 2.5)
Lab Sample ID:		NJ Non-Residential	JB62630-1	JB62630-2	JB62630-3	JB62630-4
Date Sampled:		Direct Contact Soil	4/20/2014	4/20/2014	4/21/2014	4/10/2014
Sample Depth:			(10.0-10.5)	(9.0-9.5)	(5.0-5.5)	(2.0-2.5)
Matrix:			Soil	Soil	Soil	Soil
Volatile Organic Compounds						
Acetone	mg/kg	NA*	0.0344	0.0117	ND	ND
Benzene	mg/kg		ND	0.0012	0.0226 J	ND
2-Butanone	mg/kg		0.0054 J	0.0012 ND	ND	ND
Carbon Disulfide	mg/kg		0.0034 J	0.003 J	0.029 J	ND
Chlorobenzene	mg/kg	-,	ND	ND	ND	ND
Cyclohexane	mg/kg		ND	ND	0.0853 J	ND
1,2 Dichlorbenzene	mg/kg		ND	ND	ND	ND
1.4 Dichlorobenzene	mg/kg		ND	ND	ND	ND
Ethylbenzene	mg/kg		0.0163	0.0051	6.04	ND
sopropylbenzene	mg/kg		0.0016 J	0.0026 J	0.79	ND
Methyl acetate	mg/kg		ND	ND	ND	ND
Methylcyclohexane	mg/kg	-	0.013	0.0096	1.83	ND
Methyl Tertiary Butyl Ether	mg/kg	320	NA	NA	NA	NA
Methylene chloride	mg/kg		0.0035 J	ND	ND	ND
ertiary Butyl alcohol (TBA)	mg/kg	,	ND	ND	ND	ND
Toluene	mg/kg		ND	0.00073 J	0.0497 J	ND
Total Xylene	mg/kg		0.0015 J	0.0075	2.27	ND
Total Volatile TICs	mg/kg	-	1.833 (14) J	1.26 (15) J	122.6 (12) J	ND
Semi-Volatile Organic Compo	ounds					
Acenaphthene	mg/kg	37,000	ND	ND	0.0219 J	ND
Acenaphthylene	mg/kg	300,000	0.0284 J	0.0163 J	0.0251 J	ND
Anthracene	mg/kg	30,000	0.0264 J	0.0345 J	0.108	ND
Benzo(a)anthracene	mg/kg		0.490	0.200	0.280	ND
Benzo(a)pyrene	mg/kg		0.0365 J	0.0655	0.183	ND
Benzo(b)fluoranthene	mg/kg		0.0617	0.124	0.281	ND
Benzo(g,h,i)perylene	mg/kg		0.017 J	0.0243 J	0.0848	ND
Benzo(k)fluoranthene	mg/kg	23	0.0229 J	0.0424	0.102	ND
1,1'-Biphenyl	mg/kg		ND	0.0361 J	0.0407 J	ND
Butyl benzyl phthalate	mg/kg		NA NB	NA NB	NA NA	NA
Carbazole	mg/kg mg/kg		ND 0.434	ND 0.248	ND 0.307	ND ND
Chrysene Dibenz(a,h)anthracene	mg/kg		0.434 ND	0.218 ND	0.397 0.0267 J	ND ND
Dibenz(a,n)anunacene Dibenzofuran	mg/kg		ND ND	ND ND	ND	ND
Diethyl phthalate	mg/kg		ND	ND	ND	ND
Di-n-butyl phthalate	mg/kg	,	ND	ND	ND	ND
Di-n-octyl phthalate	mg/kg	,	ND	0.0624 J	ND	ND
pis(2-Ethylhexyl)phthalate	mg/kg		ND	0.115	0.0602 J	0.0556 J
Fluoranthene	mg/kg	24,000	0.668	0.587	1.1 J	ND
Fluorene	mg/kg	24,000	ND	0.0175 J	0.0369 J	ND
ndeno (1,2,3-cd) pyrene	mg/kg	2	ND	0.0229 J	0.0788	ND
2-Methylnaphthalene	mg/kg		ND	2.28	12.50 ^a	ND
Naphthalene	mg/kg		ND	ND	3.380	ND
N-Nitrosodiphenylamine	mg/kg		ND	ND	ND	ND
Phenanthrene	mg/kg		ND 2.222	0.214	0.553	ND
Pyrene Total Semi-Volatile TICs	mg/kg mg/kg		0.603 62.700 (24) J	0.451 30.110 (23) J	0.818 42.900 (21) J	ND 12.540 (8) J
Miscellaneous	ıg/ng		32.100 (Z+) U	30.110 (20) 0	12.000 (21) 0	12.040 (0) 0
			-1.0	2.0	0.7	0.0
Ammonia		-	<1.9	2.9	9.7	2.6
Sulfur		-	5100	1980	5450	493
oH (su)		-	4.56	8.18	7.26	7.5
Solids (%)		-	NA	NA	NA	NA

mg/kg	grams per kilogram	Il results in mg/kg unless otherwise noted. millig
J	Estimated Value	
NS	Not Sampled	
ND	Not Detected	Exceeds NJDEP Non-Residential Soil Remediation Standard
NA	Not Analyzed	
()	nod Detection Limit	Meth
В	and Found in Blank	Compou
**	soil saturation limit	Health based standard defaults to
a b	sult is from 2nd run	Res

Client Sample ID:		NJ Non-	SRUB-SB-1 (6.0-6.5)	SRUB-SB-2 (2.5-3.0)	SRUB-SB-3 (6.0-6.5)
Lab Sample ID:		Residential	JB64367-2	JB64367-1	JB64367-3
Date Sampled:		Direct Contact	4/10/2014	4/10/2014	4/10/2014
Sample Depth:		Direct Contact	(6.0-6.5)	(2.5-3.0)	(6.0-6.5)
Matrix:			Soil	Soil	Soil
Matrix:			5011	5011	5011
Volatile Organic Compounds	3				
•					
Acetone	mg/kg	NA*	0.0347	0.0297	0.042
Benzene	mg/kg	5	ND	ND	ND
2-Butanone	mg/kg	44000	ND	0.0060 J	ND
Carbon Disulfide	mg/kg	110000	0.0012 J	ND	ND
Chlorobenzene	mg/kg	7400	ND ND	ND	ND
Cyclohexane	mg/kg	-	ND NB	ND ND	ND
1,2 Dichlorbenzene	mg/kg	59000	ND ND	ND ND	ND ND
1,4 Dichlorobenzene	mg/kg	13	ND	ND 0.00007 I	ND
Ethylbenzene Isopropylbenzene	mg/kg	110000	ND ND	0.00067 J	ND ND
Methyl acetate	mg/kg mg/kg	- NA*	ND ND	ND ND	ND ND
Methylcyclohexane	mg/kg	INA	ND ND	ND ND	ND ND
Methyl Tertiary Butyl Ether	mg/kg	320	ND ND	ND ND	ND ND
Methylene chloride	mg/kg	97	ND ND	ND ND	ND ND
tertiary Butyl alcohol (TBA)	mg/kg	11000	0.0097 J	0.0216 J	0.0468
Toluene	mg/kg	91000	ND	0.00032 J	ND
Total Xylene	mg/kg	170000	ND ND	0.0023	ND
Total Volatile TICs	mg/kg	-	ND	ND	0.0109 (2) J
Total Volume 1100	9/9		.,,,	.,,,,	0.0.00 (2) 0
Semi-Volatile Organic Comp					
Acenaphthene	mg/kg	37000	ND	ND	ND
Acenaphthylene	mg/kg	300000	ND	ND	ND
Anthracene	mg/kg	30000	ND ND	ND ND	ND ND
Benzo(a)anthracene	mg/kg	0.2	ND	ND	ND
Benzo(a)pyrene	mg/kg	2	ND ND	ND ND	ND ND
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	ND ND	ND ND	ND ND
Benzo(k)fluoranthene	mg/kg	23	ND ND	ND ND	ND ND
1,1'-Biphenyl	mg/kg	34000	ND ND	ND ND	
Butyl benzyl phthalate	mg/kg				
		14(1(1()	ND	ND	ND 0.113
Carhazole		14000 96	ND ND	ND ND	0.113
Carbazole Chrysene	mg/kg	96	ND	ND	0.113 ND
Chrysene	mg/kg mg/kg	96 230	ND ND	ND ND	0.113 ND ND
Chrysene Dibenz(a,h)anthracene	mg/kg	96	ND	ND	0.113 ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran	mg/kg mg/kg mg/kg	96 230 0.2	ND ND ND	ND ND ND	0.113 ND ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate	mg/kg mg/kg mg/kg mg/kg	96 230 0.2	ND ND ND ND	ND ND ND ND	0.113 ND ND ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate	mg/kg mg/kg mg/kg mg/kg mg/kg	96 230 0.2 - 550000	ND ND ND ND	ND ND ND ND	0.113 ND ND ND ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate	mg/kg mg/kg mg/kg mg/kg mg/kg	96 230 0.2 - 550000 68000	ND ND ND ND ND	ND ND ND ND ND ND	0.113 ND ND ND ND ND ND 0.0668 J
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	96 230 0.2 - 550000 68000 27000 140 24000	ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 24000	ND N	ND N	0.113 ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 24000	ND N	ND N	0.113 ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Dibentyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 24000 2 24000	ND N	ND N	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 24000 22 2400 17	ND N	ND N	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Dietnyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene N-Nitrosodiphenylamine	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 2 2400 17 390	ND N	ND N	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND ND ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene N-Nitrosodiphenylamine Phenanthrene	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 2 2400 17 390 300000	ND N	ND N	0.113 ND 0.0668 J 0.0641 J 1.19 ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene N-Nitrosodiphenylamine Phenanthrene Pyrene	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 17 390 300000 18000	ND N	ND N	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene N-Nitrosodiphenylamine Phenanthrene	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 2 2400 17 390 300000	ND N	ND N	0.113 ND 0.0668 J 0.0641 J 1.19 ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene N-Nitrosodiphenylamine Phenanthrene Pyrene Total Semi-Volatile TICs	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 17 390 300000 18000	ND N	ND N	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluoranthene Fluoranthene 1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene N-Nitrosodiphenylamine Phenanthrene Pyrene Total Semi-Volatile TICs Miscellaneous	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 17 390 300000 18000	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND N	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene N-Nitrosodiphenylamine Phenanthrene Pyrene Total Semi-Volatile TICs Miscellaneous Ammonia	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 17 390 300000 18000	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N	0.113 ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND ND ND ND ND ND ND ND ND ND
Chrysene Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate bis(2-Ethylhexyl)phthalate Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene 2-Methylnaphthalene Naphthalene N-Nitrosodiphenylamine Phenanthrene Pyrene Total Semi-Volatile TICs Miscellaneous	mg/kg	96 230 0.2 - 550000 68000 27000 140 24000 2 24000 17 390 300000 18000	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND N	0.113 ND ND ND ND ND ND 0.0668 J 0.0641 J 1.19 ND

	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Client Sample ID:			TRS2-SS-1	TRS2-SS-1A	TRS2-SS-2	TRS2-SS-2A						
Lab Sample ID:		NJ Non-	JC2112-4	JC2112-6	JC2112-3	JC2112-5						
Date Sampled:		Residential Direct Contact	8/21/2015	8/21/2015	8/21/2015	8/21/2015						
Matrix:		Soil	Soil	Soil	Soil	Soil						
Depth:			2.5-3.0 ft	5.5-6.0 ft	2.5-3.0 ft	5.5-6.0 ft						
GC/MS Volatiles (SW846 8260)	C)											
Acetone	mg/kg	NA	0.0932	ND (0.59)	-	0.0348						
Benzene	mg/kg	5	0.0067	0.103	-	0.00027 J						
Bromochloromethane	mg/kg	-	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
Bromodichloromethane	mg/kg	3	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Bromoform	mg/kg	280	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
Bromomethane	mg/kg	59	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
2-Butanone (MEK)	mg/kg	44000	ND (0.0099)	ND (0.59)	-	ND (0.0090)						
Carbon disulfide	mg/kg	110000	ND (0.0020) ND (0.0020)	ND (0.12) ND (0.12)	-	ND (0.0018) ND (0.0018)						
Carbon tetrachloride Chlorobenzene	mg/kg mg/kg	7400	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Chloroethane	mg/kg	1100	ND (0.0049)	ND (0.12)	_	ND (0.0045)						
Chloroform	mg/kg	2	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Chloromethane	mg/kg	12	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
Cyclohexane	mg/kg	-	0.0065	0.285	-	0.00043 J						
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Dibromochloromethane	mg/kg	8	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
1,2-Dibromoethane	mg/kg	0.04	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
1,4-Dichlorobenzene	mg/kg	13	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
Dichlorodifluoromethane	mg/kg	230000	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
1,1-Dichloroethane	mg/kg	24	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
1,2-Dichloroethane	mg/kg	3	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
1,1-Dichloroethene	mg/kg	150	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
1,2-Dichloropropane	mg/kg	5	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
cis-1,3-Dichloropropene	mg/kg	7	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
trans-1,3-Dichloropropene	mg/kg	7	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Ethylbenzene	mg/kg	110000	0.0074	0.843	-	ND (0.00090)						
Freon 113	mg/kg	-	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
2-Hexanone	mg/kg	-	ND (0.0049) 0.0034	ND (0.29) 0.468		ND (0.0045) 0.00060 J						
Isopropylbenzene	mg/kg	NA NA	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
Methyl Acetate Methylcyclohexane	mg/kg mg/kg	IN/A	0.0123	1.48	-	ND (0.0043)						
Methyl Tert Butyl Ether	mg/kg	320	0.0096	ND (0.059)	-	0.0099						
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
Methylene chloride	mg/kg	97	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
Styrene	mg/kg	260	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Tert Butyl Alcohol	mg/kg	11000	2.09	0.833 J	-	0.0216 J						
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Tetrachloroethene	mg/kg	5	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Toluene	mg/kg	91000	0.0018	0.0603	-	0.00038 J						
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
1,1,1-Trichloroethane	mg/kg	4200	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
1,1,2-Trichloroethane	mg/kg	6	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
Trichloroethene	mg/kg	20	ND (0.00099)	ND (0.059)	-	ND (0.00090)						
Trichlorofluoromethane	mg/kg	340000	ND (0.0049)	ND (0.29)	-	ND (0.0045)						
Vinyl chloride	mg/kg	2	ND (0.0020)	ND (0.12)	-	ND (0.0018)						
m,p-Xylene	mg/kg	170000	0.0054	0.693	-	ND (0.00090)						
o-Xylene	mg/kg	170000	0.002	0.3	-	ND (0.00090)						
Xylene (total)	mg/kg	170000	0.0074	0.993	-	ND (0.00090)						
GC/MS Volatile TIC												
	ma/ka		0.196 J	19.8 J	_	0						
Total TIC, Volatile	mg/kg mg/kg	-	0.196 J 0.121 J	43 J	-	0						
Total Alkanes	mg/kg		V. 14 I J	400								
GC Semi-volatiles (NJDEP EPI	H)											
EPH (C9-C28)	mg/kg	-	43.4	33.5	22.9	ND (7.1)						
EPH (>C28-C40)	mg/kg	-	39.6	23.9	36.1	ND (7.1)						
Total EPH (C9-C40)	mg/kg	-	83	57.4	59	ND (7.1)						
Metals Analysis												
Lead	mg/kg	800	27.4	18.9	-	12.2						
General Chemietry												
General Chemistry												
Solids, Percent	%	-	83.1	83.6	81.6	86.4						
All results in mg/kg unless other	wise noted	l.	-	milligra	ms per kilogram	mg/ka						
Il results in mg/kg unless otherwise noted. Mathematical Mathematic												
Estimated Value J Not Sampled NS												
	Exceeds	NJDEP Non-Reside	ential Soil Remediat	ion Standard	Not Detected	ND						
					Not Analyzed	NA						
				Method	Detection Limit	()						
				Compound	Found in Blank	В						
		He	ealth based stand	ard defaults to soi	I saturation limit	**						
				Result	is from 2nd run	a b						

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results - AOC 34

Client Sample ID:	NJ Non-	API-SS-12	API-SS-16	API-SS-16	API-SS-16	API-SS-16A	API-SS-16A	API-SS-16A	API-SS-16B	API-SS-16B	API-SS-16B	API-SS-15	API-SS-15	API-SS-15	API-SS-15	API-SS-15A	API-SS-15A	API-SS-15B	API-SS-15B	API-SS-15B	API-SS-15B	API-SS-15C	API-SS-15C	API-SS-15C	API-SS-13/14	API-SS-13/14	API-SS-13/14	API-SS-13/14 A	API-SS-13/14 A	API-SS-13/14B	API-SS-13/14B	API-SS-13/14B	API-SS-13/14B	API-SS-13/14C
Lab Sample ID:	Residentia Direct Conta		JC2005-1	JC2005-1T	JC2005-1U	JC2306-1	JC2306-1R	JC2306-1T	JC2306-2	JC2306-2R	JC2306-2T	JC2005-2	JC2005-2R	JC2005-2T	JC2005-2U	JC1987-1	JC1987-1R	JC2306-3	JC2306-3R	JC2306-3RA	JC2306-3T	JC2306-4	JC2306-4R	JC2306-4T	JC1987-2	JC1987-2R	JC1987-2T	JC1987-3	JC1987-3R	JC2318-4	JC2318-4A	JC2318-4R	JC2318-4T	JC2318-5
Date Sampled:	Soil	7/23/2015		8/19/2015		8/24/2015		8/24/2015											8/24/2015						8/20/2015		8/20/2015	8/20/2015	8/20/2015	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/25/2015
Matrix: Depth:		Soil			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil 16.0-16.5	Soil	Soil	Soil	Soil	Soil	Soil	Soil 1.5-2.0	Soil 1.5-2.0	Soil 5.5-6.0	Soil 5.5-6.0	Soil 16.0-16.5	Soil 16.0-16.5	Soil	Soil 16.0-16.5	Soil
GC/MS Volatiles (SW846 8260)	C)	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	3.5-10.0	3.5-10.0	3.5-10.0	14.0-14.5	14.0-14.5	14.0-14.5	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	5.0-5.5	5.0-5.5	10.0-10.5	10.0-10.5	10.0-10.5	10.0-10.5	20.0-20.5	20.0-20.5	20.0-20.5	1.5-2.0	1.5-2.0	1.3-2.0	5.5-6.0	5.5-6.0	16.0-16.5	10.0-10.5	16.0-16.5	10.0-10.5	20.0-20.5
	,		1	_							1													, , , , , , , , , , , , , , , , , , , 										
Acetone Benzene	m NA	0.0057 J 0.00026 J	0.0393 ND	-	-	ND ND	-	-	0.0261 ND		-	0.0283 ND	-	-	-	0.0683 0.00023 J	-	ND 0.0340 J	-	-	-	0.0166 ND	-	-	0.075 0.00018 J	-		0.0304 0.00014 J	-	0.0493	-	-	-	0.0134 ND
Bromochloromethane	m	0.000263	ND	_		ND ND		_	ND ND		_	ND ND			_	ND		0.0340 3 ND				ND ND	_	_	0.000183 ND	_		0.000143 ND		ND		_		ND ND
Bromodichloromethane	m 3	ND	ND	-	-	ND	-	-	ND	-		ND	-	-	-	ND	-	ND	-		-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
Bromoform	m 280	ND	ND	-		ND	-	-	ND	-		ND			-	ND	-	ND	-		-	ND	_	-	ND	-		ND	-	ND	-	-	-	ND
Bromomethane 2-Butanone (MEK)	m 59 m 44000	ND ND	ND ND	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	-	-	ND 0.0134	-	ND ND	-	-	-	ND ND	-	-	ND 0.0144	-		ND ND	-	ND ND	-	-	-	ND ND
Carbon disulfide	m 110000	ND ND	0.0013 J			ND ND			0.0101			0.00086 J				0.00080 J		ND				ND ND			0.0053			0.00036 J		0.0133		_		ND ND
	m 2	ND	ND	-	-	ND	-	-	ND	-		ND	-	-	-	ND	-	ND	-		-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
Chlorobenzene	m 7400	ND	ND	-	-	ND	-	-	ND	-		ND		-	-	ND	-	1.11			-	ND	-	-	0.00078 J	-		0.00025 J	-	0.0021 J		-		ND
Chloroethane Chloroform	m 1100	ND ND	ND ND	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-	-	-	ND ND
Chloromethane	m 2	ND ND	ND ND		-	ND ND			ND ND		-	ND ND			-	ND ND		ND ND				ND ND			ND ND			ND ND		ND ND		-	-	ND ND
Cyclohexane	m -	ND	0.0053	-	-	0.564	-	-	0.00080 J	-	-	ND	-	-	-	0.0045	-	1.1	-	-	-	0.00037 J	-	-	0.0152	-	-	0.0049	-	ND	-	-	-	ND
1,2-Dibromo-3-chloropropane	m 0.2	ND	ND		-	ND			ND		-	ND			-	ND	-	ND			-	ND	-	-	ND	-		ND	-	ND	-	-		ND
Dibromochloromethane	m 8	ND	ND	-	-	ND	-	-	ND	-	-	ND		-	-	ND	-	ND	-	-	-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
1,2-Dibromoethane 1,2-Dichlorobenzene	m 0.04 m 59000	ND ND	ND ND	-	-	ND 0.0417 J	-	-	ND ND	-	-	ND ND		-	-	ND ND	-	ND 0.0254 J	-		_	ND ND	_	_	ND 0.0029	_		ND ND	-	ND ND	-	-	-	ND ND
1.3-Dichlorobenzene	m 59000	ND ND	ND	-	-	0.0279 J	-	-	ND	-	- :	ND			-	ND	-	0.0540 J	-	- : -	-	ND		-	0.0029		- :	ND ND	-	ND ND	-		-	ND ND
1,4-Dichlorobenzene	m 13	ND	ND	-	-	0.0332 J	-	-	ND	-	-	ND			-	ND	-	0.185	-		-	ND	-	-	0.0024	-		ND	-	ND	-	-	-	ND
Dichlorodifluoromethane	m 230000	ND	ND	-	-	ND	-	-	ND	-		ND	-	-	-	ND	-	ND	-		-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
1,1-Dichloroethane	m 24	ND	ND	-	-	ND	-	-	ND	-	-	ND			-	ND		ND			_	ND	-	-	ND	-		ND	-	ND	-	-	-	ND
1,2-Dichloroethane 1,1-Dichloroethene	m 3 m 150	ND ND	ND ND	-	-	ND ND	-	-	ND ND	-	-	ND ND		-	-	ND ND	-	ND ND	-		-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-	-	-	ND ND
cis-1,2-Dichloroethene	m 560	ND	ND ND			ND ND			ND ND			ND				ND		ND ND				ND ND			ND ND			ND ND		ND ND				ND ND
trans-1,2-Dichloroethene	m 720	ND	ND	-	-	ND	-	-	ND		-	ND	-	-	-	ND	-	ND	-	-	-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
1,2-Dichloropropane	m 5	ND	ND	-		ND	-	-	ND	-	-	ND			-	ND	-	ND			_	ND	-		ND	-		ND	-	ND		-		ND
cis-1,3-Dichloropropene	m 7	ND	ND	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND	-	ND	-	•	-	ND ND	-	-	ND	-		ND	-	ND ND	-	-	-	ND ND
trans-1,3-Dichloropropene Ethylbenzene	m / m 110000	ND ND	ND 0.00028 J	_	_	ND ND	-	_	ND ND	_		ND ND			-	ND 0.00019 J		ND 0.0276 J	-			ND ND		_	ND 0.00085 J	_		ND ND	-	ND ND	-	-		ND ND
Freon 113	m -	ND	ND	-	-	ND	-	-	ND	-		ND		-	-	ND	-	ND	-		-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
2-Hexanone	m -	ND	ND	-	-	ND		-	ND	-	-	ND	-	-	-	ND	-	ND			_	ND	-	-	ND	_		ND	-	ND		-	-	ND
Isopropylbenzene	m -	ND	0.00048 J	-	-	0.303	-	-	ND	-	-	ND	-	-	-	0.00064 J	-	1.12	-	-	-	0.00033 J	-	-	0.00062 J	-	-	0.0025	-	ND	-	-	-	ND
Methyl Acetate Methylcyclohexane	m NA	ND ND	ND 0.0053	-	-	ND 0.931			ND 0.0014 J	-	-	ND ND		-	-	ND 0.0025		ND 5.86			_	ND 0.003	_	_	ND 0.0561	_		ND 0.0084	-	ND ND		-	-	ND ND
Methyl Tert Butyl Ether	m 320	ND	0.0053 ND	-	-	0.931 ND	-	-	0.0014 J ND	-		ND	-	-		0.0025	-	ND	-	-	-	0.003 ND	-	-	0.0561 ND	-	-	0.0084	-	ND ND	-	-	-	ND
4-Methyl-2-pentanone(MIBK)	m	ND	ND	-	-	ND	-	-	ND	-	-	ND			-	ND	-	ND	-		-	ND	-	-	ND	-		ND	-	ND	-	-	-	ND
Methylene chloride	m 97	0.0011 J	ND	-	-	ND	-	-	ND	-		ND	-	-	-	ND	-	ND	-		-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	0.0012 J
Styrene Text Board Alexand	m 260 m 11000	ND	ND ND			ND ND		-	ND ND	-	-	ND 0.0111 J	-		-	ND 0.440		ND ND			_	ND 0.0050 I			ND ND			ND 0.0440 L	-	ND 0.0483		-		ND 0.0200
Tert Butyl Alcohol 1.1.2.2-Tetrachloroethane	m 3	ND ND	ND ND	-		ND ND	-		ND ND	-	- :	0.0111 J ND	-:-			0.142 ND	-	ND ND	-	.	-	0.0250 J ND	-	-	ND ND	-	.	0.0148 J ND	-	0.0482 ND	-	-	-	0.0306 ND
Tetrachloroethene	m 5	ND ND	ND			ND			ND			ND	-		-	ND		ND				ND			ND			ND	-	ND		-		ND
Toluene	m 91000	0.0057	ND	-	-	ND	-	-	ND	-	-	ND	-	-	-	0.00027 J	-	ND	-	-	-	ND	-	-	0.00025 J	-	-	ND	-	ND	-	-	-	0.00045 J
1,2,3-Trichlorobenzene	m	ND	ND			ND			ND			ND				ND		ND				ND			ND		•	ND	-	ND		-		ND
1,2,4-Trichlorobenzene 1 1 1-Trichloroethane	m 820 m 4200	ND ND	ND ND	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-	-	-	ND ND
1,1,1-1 richloroethane 1,1,2-Trichloroethane	m 6	ND ND	ND ND		_	ND ND			ND ND		-	ND				ND		ND ND				ND ND	-	_	ND ND			ND ND		ND ND				ND ND
Trichloroethene	m 20	ND	ND	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND	-	ND	-	-	-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
Trichlorofluoromethane	m 340000	ND	ND	-	-	ND	-		ND	-	-	ND	-	-	-	ND	-	ND				ND	-	-	ND			ND	-	ND		-		ND
Vinyl chloride	m 2	ND	ND 0.0002E	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND 0.0013	-	ND	-	-	-	ND	-	-	ND	-		ND	-	ND ND	-	-	-	ND
m,p-Xylene o-Xylene	m 170000 m 170000	ND ND	0.00035 J ND	1		ND ND			ND ND	-	-	ND ND				0.0012 0.00067 J		ND 0.0346 J				ND ND	1		0.0024 0.0016			ND 0.00054 J		ND ND				ND ND
Xylene (total)	m 170000	ND ND	0.00035 J	-	-	ND	-	-	ND		-	ND	-	-	-	0.00067 J	-	0.0346 J 0.0572 J	-	-	-	ND	-	-	0.0016	-		0.00054 J	-	ND	-	-	-	ND
	2000			-					1																						-			
GC/MS Volatile TIC																													1		1			
Total TIC, Volatile Total Alkanes	m -	0	0.142 J 0.131 J	-	-	90.7 J 19.6 J	-	-	0.1313 J 0.058 J	-	-	0 0.0064 J	-	-	-	0.1584 J	-	117.6 J	-	-	-	0.2091 J	-	-	0.261 J 0.068 J	-		0.861 J 0.74 J	-	0	-	-	-	0
I Utai Alkanes	100	U	U.131 J			19.0 J		l	U.000 J	-	-	U.UU04 J				0.022 J	1	5.9 J	1			U	1		U.000 J			U./4 J		U		-		U

Client Sample ID:		API-SS-12	API-SS-16	API-SS-16 API-	SS-16 API-S	SS-16A	API-SS-16A API-SS-10	6A API-S	SS-16B API-SS-16B	API-SS-16B	API-SS-15	API-SS-15	API-SS-15	API-SS-15	API-SS-15A	API-SS-15A	API-SS-15B	API-SS-15B	API-SS-1	I5B API-SS-15B	API-SS-15C	API-SS-15C	API-SS-15C	API-SS-13/14	API-SS-13/14	API-SS-13/14	API-SS-13/14 A	API-SS-13/14 A	API-SS-13/14B	API-SS-13/14B	API-SS-13/14B	API-SS-13/14B	API-SS-13/14C
Lab Sample ID:	NJ Non- Residential	.IB99944-5	.IC2005-1	JC2005-1T JC20	05-111 JC2	306-1	JC2306-1R JC2306-1	1T .IC2	2306-2 JC2306-2R	.IC2306-2T	.IC2005-2	.IC2005-2R	JC2005-2T J	IC2005-211	.IC1987-1	JC1987-1R	.IC2306-3	.IC2306-3R	JC2306-3	RA JC2306-3T	.IC2306-4	JC2306-4R	JC2306-4T	JC1987-2	JC1987-2R	JC1987-2T	JC1987-3	JC1987-3R	JC2318-4	JC2318-4A	JC2318-4R	JC2318-4T	JC2318-5
Date Sampled:	Direct Conta	7/23/2015	8/19/2015	8/19/2015 8/19	/2015 8/24	1/2015	8/24/2015 8/24/201	15 8/24	4/2015 8/24/2015	8/24/2015	8/19/2015	8/19/2015	8/19/2015	8/19/2015	8/20/2015	8/20/2015	8/24/2015	8/24/2015	8/24/201	15 8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/20/2015	8/20/2015	8/20/2015		8/20/2015	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/25/2015
Matrix: Depth:	- 5011	Soil	Soil	Soil S	ioil S	Soil	Soil Soil 9.5-10.0 9.5-10.0	14.0	Soil Soil	Soil 14 0-14 5	Soil 1.5-2.0	Soil 1 5-2 0	Soil	Soil	Soil	Soil 5.0-5.5	Soil 16.0-16.5	Soil 16 0-16 5	Soil 16.0-16	Soil 5 16.0-16.5	Soil 26.0-26.5	Soil 26.0-26.5	Soil 26.0-26.5	Soil 1.5-2.0	Soil 1.5-2.0	Soil 1.5-2.0	Soil 5.5-6.0	Soil 5.5-6.0	Soil 16.0-16.5	Soil 16.0-16.5	Soil 16.0-16.5	Soil 16.0-16.5	Soil 26.0-26.5
GC/MS Semi-volatiles (SW846	8270D)	1.5-2.0	1.0-2.0	1.0-2.0	7-2.0 3.0	-10.0	3.3-10.0	J 14.0	3-14.0	14.0-14.0	1.0-2.0	1.0-2.0	1.5-2.0	1.5-2.0	0.0-0.0	5.0-5.5	10.0-10.0	10.0-10.5	10.0-10.	.5 10.0-10.5	20.0-20.3	20.0-20.5	20.0-20.3	1.0-2.0	1.5-2.0	1.0-2.0	3.3-0.0	3.5-0.0	10.0-10.0	10.0-10.0	10.0-10.5	10.0-10.5	20.0-20.3
	m 37000	ND	0.0202 J		0.02	252 J		1	ND		0.0345			- 1	0.0795		1.52			-	ND			0.0638			0.375		ND				ND
	m 300000 m 2200	ND ND	ND	-	- N	ND ND			ND -	-	0.0239 J ND	-	-	-	ND ND		ND ND	-	-	-	ND ND	-	-	ND ND			ND ND		ND ND	-	-	-	ND ND
	m 2200 m 30000	ND ND	0.0258 J			ND ND		1	ND ND		0.0983	_		-	0.0732		0.601			_	ND ND	_	-	ND ND		-	ND ND		ND ND	-		-	ND ND
Benzo(a)anthracene 4-Chloro-3-methyl phenol	m 2	ND ND	ND 0.0263.J	-		ND ND		!	ND -	-	ND 0.0939	-	-	-	ND 0.0666		0.246 ND	-	-	-	ND ND	-	-	ND 0.0739			ND 0.0775		ND ND	-	-	-	ND ND
Benzo(a)pyrene	m 0.2		0.0263 J 0.0227 J	-		ND ND			ND -	-	0.0939	-	-	-	0.064	-	0.119	-	-	-	ND ND	-	-	0.0739	-	-	0.0775	-	ND ND	-	-	-	ND ND
2,4-Dichlorophenol Benzo(b)fluoranthene	m 2100	ND	ND		- N	ND		1	ND		ND	-	-	-	ND		ND	-	-		ND	-	-	ND		-	ND		ND				ND
2,4-Dimethylphenol	m 2 m 14000	ND ND	0.0276 J ND	-	- N	ND ND		1	ND -	-	0.101 ND	-	-	-	0.0544 ND	-	0.0862 ND	-	-	-	ND ND	-	-	0.0971 ND	-	-	0.0819 ND	-	ND ND	-	-	-	ND ND
2,4-Dinitrophenol	m 1400	ND	0.0193 J ND		- N	ND ND		1	ND -		0.0902 ND	-		-	0.0581 ND		ND	-	-		ND ND	-	-	0.0488			0.0479 ND		ND				ND ND
	m 30000 m 23	ND ND	ND ND	-		ND D			ND -	-	ND 0.0237 J	-	-	-	ND ND		0.0366 J 0.0244 J	-	-	-	ND ND	-	-	ND 0.0353	-	-	ND 0.0305 J	-	ND ND	-	-	-	ND ND
4,6-Dinitro-o-cresol	m 68 m 230	ND	0.0822	-		ND.		!	ND - ND -	-	0.153	-	-	-	0.132	-	ND	-	-	-	ND	-	-	0.105		-	0.168	,	ND	-	-	-	ND ND
	m 230 m 0.2	ND ND	ND ND	-		297 J ND		1	ND -	-	ND 0.0285 J	-	-	-	ND 0.0179 J	-	0.512 0.0249 J	-	-	-	ND ND	-	-	ND 0.0135 J	-	-	ND ND	-	ND ND	-	-	-	ND ND
Fluoranthene	m 24000	ND	0.0441	-	- 0.02	216 J		1	ND -	-	0.124	-	-	-	0.103	-	0.232	-	-	-	ND	-	-	0.173		-	0.176		ND	-		-	ND ND
2-Methylphenol 3&4-Methylphenol	m 3400	ND ND	ND ND	_		ND ND			ND -	-	ND 0.0362	-	-	-	ND 0.0718	-	ND ND	-	-		ND ND	-	-	ND 0.06	-	-	ND 0.613	-	ND ND	-	-	-	ND ND
Fluorene	m 24000	ND	ND		_ N	ND ND		1	ND		ND 0.0555		-	-	ND		2.02			-	ND	-	-	ND			ND		ND ND	-			ND
Indeno(1,2,3-cd)pyrene 2-Nitrophenol	m 2 m -	ND ND	ND ND	-		ND ND			ND -		0.0555 ND	-	-	-	0.0277 J ND		0.0235 J ND	-	-	_	ND ND		-	0.0373 ND	-		0.0353 J ND		ND ND	-	-		ND ND
Naphthalene	m 17	ND	ND		- N	ND ND		1	ND .		ND	-	-	-	ND		ND	-	-	-	ND ND	-	-	ND			ND		ND			-	ND ND
4-Nitrophenol Pentachlorophenol	m - m 10	ND ND	ND 0.1	-		ND ND			ND -	-	0.0396 0.179	•	-	-	ND 0.119	-	ND ND	-	-	-	ND ND	-	-	0.0746 0.366	-		ND 1.23	-	ND ND	-	-	-	ND ND
Phenanthrene	m 300000	ND	ND		0.03				ND		ND	_			ND		6.07				ND		-	ND			ND		ND				ND
Pyrene Phenol	m 18000 m 210000	ND ND	ND 0.0665	-	- 0.03	340 J ND			ND -	-	ND 0.23	-	-	-	ND 0.167	-	0.585 ND	-	-	-	ND ND	-	-	ND 0.158	-	-	ND 0.235	-	ND ND	-	-	-	ND ND
2,3,4,6-Tetrachlorophenol	m -	ND	ND	-	- N	ND		1	ND -	-	ND		-		ND	-	ND	-	-	-	ND	-	-	ND			ND	-	ND	-	-	-	ND
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	m 68000 m 74	ND ND	ND ND	-		ND ND			ND ND		ND ND	_	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	ND ND			ND ND	-	ND ND	-	-	-	ND ND
Acetophenone	m 5	ND	ND	-	- N	ND		1	ND -	-	ND	-	-	-	ND	-	ND	-	-	-	ND	-	-	ND		-	ND	-	ND	-	-	-	ND
Atrazine 4-Bromophenyl phenyl ether	m 2400	ND ND		-		ND D			ND -		ND ND		-	-	ND ND		ND ND	-			ND ND		-	ND ND			ND ND	-	ND ND		_		ND ND
Butyl benzyl phthalate	m 14000	ND	ND		- N	ND		1	ND		ND	-	-	-	ND		ND	-	-		ND		-	ND			ND		ND				ND
1,1'-Biphenyl Benzaldehyde	m 34000 m 68000	ND ND	ND ND	-		ND ND			ND - ND -	-	0.0183 J ND	-	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	0.0402 J ND			ND ND	-	ND ND	-	-	-	ND ND
2-Chloronaphthalene	m 00000	ND	ND		- N	ND		1	ND		ND	-	-	-	ND	-	ND	-	_	-	ND		-	ND	-	-	ND		ND		-	-	ND
4-Chloroaniline Carbazole	m - m 96	ND ND	ND ND	-		ND ND	-		ND -	-	ND 0.0138 J	-	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-	-	-	ND ND
Caprolactam	m 340000	ND	ND	-	- N	ND		-	ND -	-	ND	-	-	-	ND	-	ND	-	-	-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
bis(2-Chloroethoxy)methane bis(2-Chloroethyl)ether	m 2	ND ND	ND ND			ND ND			ND ND		ND ND				ND ND		ND ND				ND ND		-	ND ND			ND ND		ND ND				ND ND
bis(2-Chloroisopropyl)ether	m 67	ND	ND	-	- N	ND	-	1	ND -	-	ND	-	-	-	ND	-	ND	-	-	-	ND	-	-	ND		-	ND	-	ND	-	-	-	ND
4-Chlorophenyl phenyl ether 2 4-Dinitrotoluene	m 2	ND ND	ND ND	-		ND D	-		ND -		ND ND	-	-	-	ND ND		ND ND		-	-	ND ND	-	-	ND ND	-		ND ND	-	ND ND			-	ND ND
2,6-Dinitrotoluene	m 3	ND	ND	-	- N	ND		1	ND		ND	-			ND		ND	-		-	ND		-	ND		,	ND		ND	-	-	-	ND
3,3'-Dichlorobenzidine 1,4-Dioxane	m 4	ND ND	ND ND			ND ND	-		ND -		ND ND	-	-	-	ND ND		ND ND		-	-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-		-	ND ND
Dibenzofuran	m	ND	ND		- N	ND		1	ND		0.0225 J		-	-	ND		ND	-			ND		-	0.0308 J			ND		ND		-	-	ND
Di-n-butyl phthalate	m 68000 m 27000	ND ND	ND ND	-		ND ND			ND -	-	ND ND	-	-	-	ND ND	-	ND ND	-	-	-	ND ND		-	ND ND	-	-	ND ND		ND ND	-	-	-	ND ND
Diethyl phthalate	m 550000	ND	ND		- N	ND		1	ND		ND	_		-	ND		ND				ND		-	ND			ND		ND				
Dimethyl phthalate bis(2-Ethylhexyl)phthalate	m - m 140	ND ND	ND 0.114	-	- N	ND ND		1	ND - ND	-	ND 0.0668 J	-	-	-	ND 0.0837	-	ND 0.957	-	-	-	ND ND	-	-	ND ND		-	ND 0.133		ND ND	-	-	-	ND ND ND
GC/MS Semi-volatiles (SW846		,,,,,								1								1	-								200						
Hexachlorobenzene	m 1	ND	ND		N	ND		1	ND		ND				ND		ND				ND			ND			ND		ND				ND
Hexachlorobutadiene	m 25 m 110	ND ND	ND ND	-		ND ND			ND -	-	ND ND	-	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	ND		-	ND		ND	-	-		ND ND
Hexachlorocyclopentadiene Hexachloroethane	m 110 m 140	ND ND	ND ND	-		ND ND			ND -	-	ND ND		-	-	ND ND		ND ND	_	-		ND ND	+ - +	_	ND ND	-	_	ND ND	-	ND ND		-	-	ND ND
Isophorone	m 2000	ND	ND		- N	ND		1	ND		ND			-	ND		ND	-			ND			ND			ND		ND				ND
2-Methylnaphthalene 2-Nitroaniline	m 2400 m 23000	ND ND	0.0226 J ND			.117 VD	_	0.0	815 J ND -		0.0472 J ND			-	ND ND		16.1 ND	-			ND ND	├		0.46 ND			0.298 ND	_	ND ND				ND ND
3-Nitroaniline	m	ND	ND		- N	ND		1	ND		ND	-		-	ND		ND	-			ND		-	ND			ND	*	ND	-		-	ND
4-Nitroaniline Nitrobenzene	m - m 340	ND ND	ND ND	-	- N	ND ND	-	1	ND - ND	-	ND ND	-	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-	-	-	ND ND
N-Nitroso-di-n-propylamine	m 0.3 m 390	ND	ND		- N	ND		1	ND		ND ND				ND		ND				ND			ND			ND		ND				ND ND
N-Nitrosodiphenylamine 1 2 4 5-Tetrachlorobenzene	m 390	ND ND	ND ND	-	- N	ND ND		1	ND - ND	-	ND ND	-	-	-	ND ND	-	ND ND	-	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-	-	-	ND ND
GC/MS Semi-volatile TIC		NO							-		.,0										.,,,,						.,,,,,		.40				
Total TIC, Semi-Volatile	m	1.53 J	7.2 J		6.5	59 J		11	63 J	T	4.91 J				12.58 J		66.6 J		1		0.28 J	T		6.93 J			31.7 J		0			1	0
Total Alkanes	m -		27.62 J	-		.7 J			83 J -	-	5.49 J	-	-		12.22 J		14.1 J	-	-	-	0	-	-	19.03 J		-	22.1 J		0	-	-		0
GC Semi-volatiles (NJDEP EPI	1)																																
EPH (C9-C28)	m -		-	-	-	-						184	-	-		-	-	-	11200			-	-			550			-	56.2			-
EPH (>C28-C40) Total EPH (C9-C40)	m -	-	-		_	_						104 288	-	-			-	-	2050 13200		-					123 673	-	-	_	62.4 119	-		-
- Stall ETTT (03-040)							-				-	200	-	-			-		10200		<u> </u>		-	-	<u> </u>	0/0				110	-	-	-

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results - AOC 34

											1			1									1	1						1		1		
Client Sample ID:	NJ Non-	API-SS-	2 API-SS-1	6 API-SS-10	API-SS-16	API-SS-16A	API-SS-16A	API-SS-16A	API-SS-16B	API-SS-16B	API-SS-16B	API-SS-15	API-SS-15	API-SS-15	API-SS-15	API-SS-15A	API-SS-15A	API-SS-15B	API-SS-15B	API-SS-15B	API-SS-15B	API-SS-15C	API-SS-15C	API-SS-15C	API-SS-13/14	API-SS-13/14	API-SS-13/14	API-SS-13/14 A	API-SS-13/14 A	API-SS-13/14B	API-SS-13/14B	API-SS-13/14B	API-SS-13/14B	API-SS-13/14C
Lab Sample ID:	Residential Direct Contact	JB99944	-5 JC2005-1	1 JC2005-11	JC2005-1U	JC2306-1	JC2306-1R	JC2306-1T	JC2306-2	JC2306-2R	JC2306-2T	JC2005-2	JC2005-2R	JC2005-2T	JC2005-2U	JC1987-1	JC1987-1R	JC2306-3	JC2306-3R	JC2306-3RA	JC2306-3T	JC2306-4	JC2306-4R	JC2306-4T	JC1987-2	JC1987-2R	JC1987-2T	JC1987-3	JC1987-3R	JC2318-4	JC2318-4A	JC2318-4R	JC2318-4T	JC2318-5
Date Sampled:	Soil	7/23/201	5 8/19/201	5 8/19/2015	8/19/2015	8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/19/2015	8/19/2015	8/19/2015	8/19/2015	8/20/2015	8/20/2015	8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/24/2015	8/20/2015	8/20/2015	8/20/2015	8/20/2015	8/20/2015	8/25/2015	8/25/2015	8/25/2015	8/25/2015	8/25/2015
Matrix:	50	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:		1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	9.5-10.0	9.5-10.0	9.5-10.0	14.0-14.5	14.0-14.5	14.0-14.5	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	5.0-5.5	5.0-5.5	16.0-16.5	16.0-16.5	16.0-16.5	16.0-16.5	26.0-26.5	26.0-26.5	26.0-26.5	1.5-2.0	1.5-2.0	1.5-2.0	5.5-6.0	5.5-6.0	16.0-16.5	16.0-16.5	16.0-16.5	16.0-16.5	26.0-26.5
Metals Analysis																																		
Aluminum	m NA	3360	4860			12800	-	-	21500	-	-	9370	_	-	_	10100	-	17900	-	-	_	2250	_	-	10300	-	-	6190	-	16300	-	-	-	708
Antimony	m 450	<2.2	ND	-	-	ND	-	-	ND	-	-	ND	-	-	-	ND	-	ND	-	-	-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
Arsenic	m 19	7.3	4.1		-	18.8	-		12.9	-	-	9	_	-	_	8.8	-	46.1 a	-		-	ND	_	-	5.8	-	-	4.8	-	4.9	-	-	-	ND
Barium	m 59000	<22	34	-	-	100	-	-	46.8	-	-	73.9	-	-	-	72.1	-	91.2	-	-	-	ND	-	-	58.6	-	-	42.3		47.1		-		ND
Beryllium	m 140	<0.22	0.55	-	-	1	-	-	1.4			0.58			-	0.76	-	0.88	_		-	0.34		_	0.64	-	-	1		0.95		-		ND
Cadmium	m 78	< 0.55	ND	-	-	1.2	-	-	ND	-	-	ND	-	-	-	ND	-	0.87	-	-	-	ND	-	-	ND	-	-	ND	-	ND		-		ND
Calcium	m -	<550	1800	-	-	3190	-	-	2390	-	-	6020	-	-	-	2030	-	2150	-	-	-	778	-	-	21400	-	-	948		775		-		ND
Chromium	m	23	58.5	1	1	166			43.1		1	29.2	_	1		47		84.3				25.6	1	1	39.3			33.7		21.2				2.6
Chromium, Hexavalent	m -	-	-	0.84	1.5	-	ND	ND	-	ND	ND		-	0.6	4.8	-	ND	-	ND		ND	-	ND	1.4	-	1.1			ND			ND	ND	
Cobalt	m 590	<5.5	6.3			17.8			11.3			7.7	_			10		10.4				ND			9.2		-	ND		9.4				ND
Conner	m 45000	7.4	197	_	_	1010		-	50.7	l .	_	53.5	_		_	69	_	61.5			_	4.8	_		94.2		_	64.6		8.5				ND
ron	m	21300				25100			34500		_	20200			_	21100	_	60300		-		811		-	22500			12700		23900			-	441
ead	m 800	9.7	60.2			242			50			70.7				69.6		206 a				3.2			43.7			70.9		9.9				ND
Magnesium	m -	1380	1310	_	-	3950		-	7170	-	_	3230	_		_	3750	_	2390	-	-	_	ND			5720	_	-	1340	_	3780	_	-	-	ND ND
Manganese	m 5900	60.3	93.7	_	<u> </u>	222	-		372	-		217		ļ <u> </u>	-	223	-	468 a			-	17.3			247		-	102	-	236	-	-		2.6
Mercury	m 65	<0.036				6.7			0.3			0.11				0.14		0.38				ND			0.26			0.069		ND.		-		ND
Nickel	m 23000	6.1		-	-	133	-	-	32.7	-	-	22.5	-	-	-	33	-	50.1			-	5.4	-	-	36.5	-	-	31.6	-	17.9	-	-	-	ND ND
	m 23000		35 ND																			ND			ND			ND ND						ND ND
Potassium Selenium	m 5700	1470			_	1450	_	_	4770 ND	-		1180 ND		-		1540 ND		1570				ND ND			ND ND		-	ND ND		2020 ND		_		ND ND
Silver	m 5700	<0.55		-	-	ND.	-	-	ND ND	-	-	ND ND	-	-	-	ND ND	-	ND a	-	-	-	ND ND	-	-	ND ND	-	-	ND ND	-	ND ND	-	-	-	ND ND
3iivei	3700								110									ND a												110				
Sodium Sulfur	m -	<1100	ND	-	-	ND	-	-	4410	-	-	ND	-	-	-	ND	-	ND	-	-	-	ND	-	-	ND	-	-	ND	-	ND	-	-	-	ND
	m	<1.1	ND			ND			ND			ND				ND						ND			ND			ND		ND				ND
Thallium	m 79			-	+		1	1		1	1			1	-		-	ND a					1	1		1						-		
Vanadium	m 1100 m 110000	23.8		-	-	126	-	-	54.7 137	-	-	38.3	-	-	-	71.5 167	-	98.5 125	-	-	-	33.1	-	-	40.8 225	-	-	34	-	31.6 48.4	-	-	•	ND ND
Zinc	m 110000	18	200			532			137			95.8			_	167	_	125			_	17.6			225	_		314	-	48.4		-		ND
General Chemistry																																		
ron, Ferrous	%				-	-	-	0.74 b	_	-			-	-	0.94 b	-					-	-	-	-	-	-	-		-	-	-	-	-	-
Nitrogen, Ammonia	m -	36.7	7.1	-	-	34.7	-	-	139	-	-	12	-	-	-	21.2	-	55.1	-	-	-	ND	-	-	5.8	-	-	13.3	-	28.9	-	-	-	ND
Redox Potential Vs H2	mv		-	302	-	-	282		-	288	-	-	_	292	-	-	357	-	182		-	-	340	-	-	239	-	-	293	-		279		-
Solids, Percent	% -	-	92	-	-	-	-	-	-	-	-	93.7	-	-	-	87.1	-	-	-	-	-	-	-	-	94.7	-	-	82.8		-		-	-	-
Solids. Percent	%	90.3			-	72.4	-		54.6	-	-		_		_			74.6			-	84	1	-		-	-		-	78.8	-	-		88.4
Sulfide Screen	-			1			1	NEGATIVE d	1 -				_		NEGATIVE d	-					-		1	1	-									t
Sulfide Neutral Extraction	m -	<4.3	ND	1 .	1 .	9.4	1 .	INCOATIVE -	ND	1 -	-	4.2	-		INCOATIVE.	ND		ND		-		4.6	1 .	1 .	ND			ND		ND			-	ND
Total Organic Carbon	m	-1.0	1,10	+ -	+ -	2.7		9810 °	,,,,		1	1.2			5620°	.,.0		.,,,					1				-				_			
H	eu -	3.02	8.31	8.14	-	8.23	7.97	9610	8.02	7.61	-	9.43		8.74	- 5020	7.55	7.6	8.18	7.89	-		6.75	6.66	-	11.44	10.6	-	7.34	7.45	7.89		6.67	-	6.94
in .	su -	3.02	0.31	0.14		0.23	7.97	-	0.02	7.01	1 -	9.43	-	0.74	-	1.55	7.0	0.10	1.09	-		0.75	0.00	1 -	11.44	10.0	-	1.34	1.45	1.09	-	0.07	-	0.94

All results in mg/kg unless otherwise noted.

Exceeds NJDEP Non-Residential Soil Remediation Standard

milligrams per kilogram mg/kg
Estimated Value MS
Not Sampled NS
Not Defected ND
Not Analyzed NA
Method Detection Limit ()
Compound Found in Blank B
Health based standard defaults to soil saturation limit Result is from 2nd run s b

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results - AOC-34

Client Sample ID:			API-SS-1	API-SS-1	API-SS-2	API-SS-2A	API-SS-3A	API-SS-3B	API-SS-4A	API-SS-4B	API-SS-5A	API-SS-5B	API-SS-6A	API-SS-6A	API-SS-6B	API-SS-6B	API-SS-7	API-SS-7	API-SS-7A	API-SS-7A	API-SS-7B	API-SS-7B	API-SS-7B	API-SS-7C	API-SS-7C	API-SS-7D	API-SS-8	API-SS-8	API-SS-8
		NJ Non- Residential																											
Lab Sample ID: Date Sampled:		Direct Contac	JC2318-1 8/25/2015	JC2318-1T 8/25/2015	JC2318-2 8/25/2015	JC2318-3 8/25/2015	JB99639-5 7/21/2015	JB99639-6 7/21/2015	JB99639-3 7/21/2015	JB99639-4 7/21/2015	JB99639-1 7/21/2015		JB99546-3 7/20/2015	JB99546-3R 7/20/2015	JB99546-4 7/20/2015	JB99546-4T 7/20/2015	JB99428-6 7/17/2015	JB99428-6R 7/17/2015	JB99546-5 7/20/2015	JB99546-5T 7/20/2015	JB99546-6 7/20/2015	JB99546-6R 7/20/2015	JB99546-6RT 7/20/2015	JB99546-7 7/20/2015	JB99546-7R 7/20/2015	JB99546-8 7/20/2015	JB99428-4 7/17/2015	JB99428-4R 7/17/2015	JB99428-4T 7/17/2015
Matrix:		Soil	8/25/2015 Soil	8/25/2015 Soil	8/25/2015 Soil	8/25/2015 Soil	Soil	Soil	Soil	7/21/2015 Soil	Soil	7/21/2015 Soil	Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	Soil	Soil	Soil	7/20/2015 Soil	Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/17/2015 Soil	Soil	Soil
Depth:			14.0-14.5 ft			16.0-16.5 ft		27.5-28.0 ft			15.0-15.5 ft		12.0-12.5 ft			26.0-26.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	6.0-6.5 ft	6.0-6.5 ft	6.0-6.5 ft	12.0-12.5 ft		26.0-26.5 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
GC/MS Volatiles (SW846 8260C)																		•											
· · · · · · · · · · · · · · · · · · ·							T						T (2.222.)					1	I				T						
Acetone	mg/kg	NA -	0.0627 ND (0.00050)		0.0309 ND (0.00046)	ND (0.0091)	0.0135	0.0105 J	0.0262 ND (0.00014)		ND (0.0022)	0.0086 J		_	ND (0.0032)		0.0134 ND (0.00015)	-	0.0129 ND (0.00014)	-	ND (0.14)			0.0066 J ND (0.00012)	_	0.0082 J ND (0.00015)	0.0375 ND (0.00015)	-	
Bromochloromethane	mg/kg	3	ND (0.0050)	-	ND (0.0046)	ND (0.0045)	0.00027 0	145 (0.00010)	112 (0.00011)	142 (0.00010)	112 (0.00010)) ND (0.00017)	14D (0.00012)	-	ND (0.00044)	-	ND (0.00013)	-	ND (0.00031)	-	ND (0.0004)		-	0.00068 J	-	ND (0.00015)	ND (0.00013)	-	
Bromodichloromethane	mg/kg	3	ND (0.0020)	-	ND (0.0018)	ND (0.0018)		ND (0.00019)				ND (0.00019)		-	ND (0.00022)	-	ND (0.00017)	-	ND (0.00016)	-	ND (0.0098)	-	-	0.0061	-	ND (0.00018)	ND (0.00017)	-	
Bromoform	mg/kg		ND (0.0050)	-	ND (0.0046)	(0.00.0)	ND (0.00024)	(0.0000)	(0.00000)	(0.000.)		ND (0.00029)		-	ND (0.00033)	-	ND (0.00026)	-	ND (0.00024)	-	ND (0.015)	-	-	0.011	-	ND (0.00027)	ND (0.00026)	-	
2-Butanone (MEK)	mg/kg mg/kg		ND (0.0050)	_	ND (0.0046) ND (0.0092)	ND (0.0045) ND (0.0091)	ND (0.00037) ND (0.0019)	145 (0.00010)	ND (0.00039)	145 (0.00012)	ND (0.00035)	ND (0.00045) ND (0.0024)		_	ND (0.00052) ND (0.0027)	_	ND (0.00040) ND (0.0021)	_	ND (0.00037) ND (0.0019)	_	ND (0.023) ND (0.12)			ND (0.00033) ND (0.0017)	_	ND (0.00041) ND (0.0022)	ND (0.00041) 0.0033 J	_	
Carbon disulfide	mg/kg		0.0011 J	-	0.012	ND (0.0031)	0.00041 J	0.00041 J	0.0053	(0.0000)	ND (0.00022)	(0.000.)	ND (0.00021)	-	ND (0.00032)		0.00091 J	-	ND (0.00023)	-	ND (0.014)			0.00040 J	-	0.00044 J	0.0036 J	-	
Carbon tetrachloride	mg/kg		ND (0.0020)	-	ND (0.0018)	ND (0.0018)	ND (0.00023)	ND (0.00028)	ND (0.00025)	ND (0.00027)	ND (0.00022)	ND (0.00029)	ND (0.00021)	_	ND (0.00033)	-	ND (0.00025)	-	ND (0.00023)	-	ND (0.015)	_	-	0.00039 J	-	ND (0.00026)	ND (0.00026)	-	
Chlorobenzene	mg/kg		ND (0.0020)	-	ND (0.0018)	(0.00.0)	(0.000.0)	(0.000.0)	(0.000)	(0.000.0)		(0.000.0)	ND (0.00014)	-	ND (0.00022)	-	ND (0.00017)	-	ND (0.00016)	-	0.245	-	-	ND (0.00014)	-	ND (0.00018)	ND (0.00017)	-	
Chloroethane Chloroform	mg/kg mg/kg	1100	ND (0.0050)		ND (0.0046) ND (0.0018)	ND (0.0045) ND (0.0018)	(0.000.0)	ND (0.00059) ND (0.00018)	(0.0000_)	(0.00000)	()	ND (0.00060) ND (0.00019)	(0.000)		ND (0.00068) ND (0.00021)		ND (0.00053) 0.0013 J		ND (0.00049) ND (0.00015)	-	ND (0.030) ND (0.0094)			ND (0.00043) 0.065		ND (0.00055) ND (0.00017)	ND (0.00054) ND (0.00017)	_	
Chloromethane	mg/kg	12	ND (0.0020)	_	ND (0.0016)	(0.00.0)	ND (0.00013)		,	, ,	. ,	, , ,		-	ND (0.00021)	-	ND (0.00029)	-	ND (0.00013)	-	ND (0.0034)	-	-	ND (0.00024)	-	ND (0.00017)	ND (0.00017)	-	
Cyclohexane	mg/kg	-	ND (0.0020)	-	ND (0.0018)	ND (0.0018)	ND (0.00032)	ND (0.00039)	ND (0.00034)	ND (0.00037)	ND (0.00031)	ND (0.00039)	ND (0.00029)	_	ND (0.00045)	-	ND (0.00035)	-	ND (0.00032)	-	ND (0.020)	_	-	ND (0.00028)	-	ND (0.00036)	ND (0.00035)	-	
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.0020)	-	ND (0.0018)	ND (0.0018)	(,	(,	(/	(,	(/	ND (0.00068)	(,	-	ND (0.00077)	-	ND (0.00060)	-	ND (0.00055)	-	ND (0.034)	-	-	ND (0.00049)	-	ND (0.00062)	ND (0.00061)	-	
Dibromochloromethane 1.2-Dibromoethane	mg/kg	0.04	ND (0.0020)	-	ND (0.0018) ND (0.00092)	ND (0.0018) ND (0.00091)	ND (0.00021) ND (0.00013)	ND (0.00025) ND (0.00016)	ND (0.00022) ND (0.00014)	ND (0.00024) ND (0.00015)	0.00025 J ND (0.00013)	ND (0.00026) ND (0.00016)	ND (0.00019) ND (0.00012)	-	ND (0.00029)	-	ND (0.00023) ND (0.00014)	-	ND (0.00021)	-	ND (0.013) ND (0.0083)		-	0.0054 ND (0.00012)	-	ND (0.00023) ND (0.00015)	ND (0.00023) ND (0.00015)	-	- _
1,2-Dichlorobenzene	mg/kg mg/kg		ND (0.0010) ND (0.0010)	-	ND (0.00092)		ND (0.00013)			ND (0.00013)		ND (0.00016)		-	ND (0.00019) ND (0.00017)	-	ND (0.00014)	-	ND (0.00013) ND (0.00012)	-	0.0654	-	-	ND (0.00012)	-	ND (0.00013)	ND (0.00015)	-	
1,3-Dichlorobenzene	mg/kg		ND (0.0010)	-	ND (0.00092)		ND (0.00016)		ND (0.00017)	ND (0.00018)		ND (0.00020)		-	ND (0.00022)	-	ND (0.00017)	-	ND (0.00016)	-	0.0906		-	ND (0.00014)	-	ND (0.00018)	ND (0.00017)	-	_
1,4-Dichlorobenzene	mg/kg	13	0.00058 J		ND (0.00092)	ND (0.00091)	ND (0.00023)	(,	ND (0.00024)	(0.00000)	0.0014	ND (0.00028)	(, , , ,	-	ND (0.00032)		ND (0.00025)	-	ND (0.00023)	-	0.423			ND (0.00020)	-	ND (0.00026)	ND (0.00025)	-	
Dichlorodifluoromethane 1.1-Dichloroethane	mg/kg		ND (0.0050)	-	ND (0.0046)	ND (0.0045)	ND (0.00036)	(0.000.0)	ND (0.00039)	(0.000)	(0.00000)	, (0.000.0)	(0.00000)	-	ND (0.00051)	-	ND (0.00040)	-	ND (0.00037)	-	ND (0.023)	-	-	ND (0.00033)	-	ND (0.00041)	ND (0.00040)	-	
1.2-Dichloroethane	mg/kg mg/kg	3	ND (0.0010) ND (0.0010)		ND (0.00092) ND (0.00092)	ND (0.00091) ND (0.00091)	ND (0.00014) ND (0.00013)		ND (0.00015) ND (0.00014)	ND (0.00016) ND (0.00016)	0.00049 J ND (0.00013)	ND (0.00018) ND (0.00017)	0.00070 J ND (0.00012)		ND (0.00020) ND (0.00019)		ND (0.00016) ND (0.00015)		ND (0.00014) ND (0.00014)	-	ND (0.0089) ND (0.0085)			0.00018 J ND (0.00012)	_	ND (0.00016) ND (0.00015)	ND (0.00016) ND (0.00015)		
1,1-Dichloroethene	mg/kg	150	ND (0.0010)	-	ND (0.00092)		ND (0.00059)	, ,	. ,	. ,	. ,	, , ,		-	ND (0.00084)	-	ND (0.00065)	-	ND (0.00060)	-	ND (0.037)	-	-	ND (0.00053)	-	ND (0.00067)	ND (0.00066)	-	-
cis-1,2-Dichloroethene	mg/kg		ND (0.0010)	-	ND (0.00092)	ND (0.00091)	ND (0.00078)	(0.0000)	ND (0.00084)	(0.0021	ND (0.00097)	0.0026	-	ND (0.0011)	-	ND (0.00086)	-	ND (0.00079)	-	ND (0.049)	-	-	ND (0.00070)	-	ND (0.00088)	ND (0.00087)	-	
trans-1,2-Dichloroethene 1,2-Dichloropropane	mg/kg mg/kg		ND (0.0010) ND (0.0020)	-	ND (0.00092) ND (0.0018)	ND (0.00091)	ND (0.00060)	(0.000.0)	(0.0000.)	(0.0000)	(0.00000)	ND (0.00074)	(0.0000)	-	ND (0.00084) ND (0.00034)	-	ND (0.00066) ND (0.00026)	-	ND (0.00060) ND (0.00024)	-	ND (0.037) ND (0.015)	-	-	ND (0.00054) ND (0.00021)	-	ND (0.00067)	ND (0.00066)	-	
cis-1.3-Dichloropropene	mg/kg		ND (0.0020)	-	ND (0.0018)	145 (0.0010)	(0.000.)	(0.0000)	(0.000.0)	(0.00010)		(0.0000)	ND (0.00011)	-	ND (0.00034)	-	ND (0.00026)	-	ND (0.00024)	-	ND (0.015)	-	-	ND (0.00021)	-	ND (0.00027)	ND (0.00027)	-	
trans-1,3-Dichloropropene	mg/kg		ND (0.0020)	-	ND (0.0018)								ND (0.00011)	-	ND (0.00025)	-	ND (0.00020)	-	ND (0.00012)	-	ND (0.011)	-	-	ND (0.00016)	-	ND (0.00020)	ND (0.00020)	-	-
Ethylbenzene	mg/kg		ND (0.0010)	-	ND (0.00092)		ND (0.00016)							-	ND (0.00023)	-	0.00027 J	-	ND (0.00017)	-	ND (0.010)		-	ND (0.00015)	_	ND (0.00019)	0.0123	-	
Freon 113 2-Hexanone	mg/kg		ND (0.0050)	-	ND (0.0046) ND (0.0046)	ND (0.0045)	ND (0.00045)	(,	(,	(,	(,	ND (0.00056) ND (0.0017)	(,	-	ND (0.00063) ND (0.0019)	-	ND (0.00050)	-	ND (0.00046) ND (0.0014)	-	ND (0.028) ND (0.085)	_	-	ND (0.00040) ND (0.0012)	_	ND (0.00051)	ND (0.00050)	-	
Isopropylbenzene	mg/kg mg/kg	-	ND (0.0050)	-	ND (0.0046) ND (0.0018)	ND (0.0045)	(0.00.0)	(/	(/	(,	(,	(, , , ,	ND (0.0012)	-	ND (0.0019)	-	ND (0.0015) ND (0.00012)	-	ND (0.0014) ND (0.00011)	-	ND (0.085) 0.269	-	-	ND (0.0012) ND (0.00096)	-	ND (0.0015)	ND (0.0015) ND (0.00012)	-	
Methyl Acetate	mg/kg	NA	ND (0.0050)	-	ND (0.0046)	ND (0.0045)	ND (0.00086)		ND (0.00093)) ND (0.0011)		_	ND (0.0012)	-	ND (0.00095)	-	ND (0.00087)	-	ND (0.054)		_	ND (0.00077)	_	ND (0.00098)	ND (0.00096)	-	
Methylcyclohexane	mg/kg	-	ND (0.0020)	-	ND (0.0018)	ND (0.0018)	ND (0.00023)	ND (0.00028)	ND (0.00025)	ND (0.00026)	ND (0.00022)	ND (0.00028)	ND (0.00021)	-	ND (0.00032)	-	ND (0.00025)	-	ND (0.00023)	-	ND (0.014)	-	-	ND (0.00020)	-	ND (0.00026)	ND (0.00025)	-	-
Methyl Tert Butyl Ether	mg/kg	320	ND (0.0010)	-	0.00026 J	0.00045 J	0.0013	ND (0.00019)				ND (0.00019)		_	ND (0.00022)	-	ND (0.00017)	-	ND (0.00016)	-	ND (0.0097)	_		ND (0.00014)	-	ND (0.00017)	ND (0.00017)	-	
4-Methyl-2-pentanone(MIBK) Methylene chloride	mg/kg mg/kg	97	ND (0.0050) 0.0010 J	-	ND (0.0046) 0.0013 J	ND (0.0045) 0.0017 J	0.0010 J	. ,	0.0023 J	, ,	, ,		ND (0.00042) ND (0.00090)	-	ND (0.00065) ND (0.0014)	-	ND (0.00051) ND (0.0011)	-	ND (0.00047) ND (0.0010)	-	ND (0.029) ND (0.062)		-	ND (0.00041) 0.0029 J	-	ND (0.00052) ND (0.0011)	0.0084 ND (0.0011)	-	
Styrene	mg/kg		ND (0.0020)	-	ND (0.0018)	ND (0.0018)	ND (0.00018)	ND (0.00022)	ND (0.00019)	ND (0.00021)	ND (0.00030)		ND (0.00030)	-	ND (0.00025)	-	ND (0.00020)	<u> </u>	ND (0.0018)	-	ND (0.002)		-	ND (0.00016)	-	ND (0.00011)	ND (0.00020)	-	
Tert Butyl Alcohol	mg/kg	11000	0.0162 J	-	ND (0.023)	ND (0.023)	0.0143 J	0.0161 J	ND (0.0029)	0.0085 J	ND (0.0026)	ND (0.0033)	ND (0.0024)	-	ND (0.0038)	-	ND (0.0030)	-	ND (0.0027)	-	ND (0.17)	-	-	ND (0.0024)	-	ND (0.0030)	ND (0.0030)	-	-
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.0020)	-	ND (0.0018)	ND (0.0018)	(,	ND (0.00022)	(/	(,	(,	, , ,	ND (0.00016)	-	ND (0.00025)	-	ND (0.00019)	-	ND (0.00018)	-	ND (0.011)	_	-	ND (0.00016)	-	ND (0.00020)	ND (0.00019)	-	
Tetrachloroethene Toluene	mg/kg mg/kg	5 91000	ND (0.0020) ND (0.0010)		ND (0.0018) 0.00040 J	ND (0.0018) ND (0.00091)	ND (0.00030) 0.0061	0.00046 J 0.0062	ND (0.00033) 0.006	0.00062 J 0.0058	0.0074	ND (0.00038) 0.00087 J	0.00092 J 0.0032	_	ND (0.00043) 0.0015	-	ND (0.00033) 0.007	-	ND (0.00031) 0.0014	-	ND (0.019) ND (0.013)			ND (0.00027) 0.0041	_	ND (0.00034) 0.0018	ND (0.00034) 0.0052	-	
1,2,3-Trichlorobenzene	mg/kg	91000	ND (0.0050)	-	ND (0.0046)	ND (0.0045)	ND (0.00018)	ND (0.00022)	ND (0.00019)	ND (0.00020)	0.002 0.00057 J	ND (0.00022)	ND (0.00016)	-	ND (0.00025)	-	ND (0.00019)	-	ND (0.00018)	-	ND (0.013)		-	ND (0.00016)	-	ND (0.00020)	ND (0.00020)	-	
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.0050)		ND (0.0046)	ND (0.0045)	ND (0.00017)	ND (0.00021)	ND (0.00018)		0.0031 J	ND (0.00021)	ND (0.00015)		ND (0.00024)		ND (0.00019)		ND (0.00017)	<u> </u>	ND (0.011)			ND (0.00015)	-	ND (0.00019)	ND (0.00019)		<u> </u>
1,1,1-Trichloroethane	mg/kg		ND (0.0020)	-	ND (0.0018)	ND (0.0018)	ND (0.00015)	ND (0.00018)	ND (0.00016)	ND (0.00017)	110 (0.00010)	, , , , , , , ,	(, , , ,	-	ND (0.00021)	-	ND (0.00016)	-	ND (0.00015)	-	ND (0.0094)	-	-	ND (0.00013)	-	ND (0.00017)	ND (0.00017)	-	-
1,1,2-Trichloroethane Trichloroethene	mg/kg		ND (0.0020)		ND (0.0018) ND (0.00092)	ND (0.0018) ND (0.00091)	ND (0.00015) ND (0.00015)	ND (0.00018) 0.00090 J	ND (0.00016)	ND (0.00017) ND (0.00017)	ND (0.00014) 0.00020 J		ND (0.00013) ND (0.00013)	_	ND (0.00021) ND (0.00021)	-	ND (0.00016)	-	ND (0.00015) ND (0.00015)	-	ND (0.0093) ND (0.0093)			ND (0.00013) ND (0.00013)	_	ND (0.00017) ND (0.00017)	ND (0.00016) ND (0.00016)	-	
Trichlorofluoromethane	mg/kg mg/kg		ND (0.0010)		ND (0.00092)	ND (0.00091)		ND (0.00031)				ND (0.00018)		-	ND (0.00021)		ND (0.00018)	-	ND (0.00015)		ND (0.0093)		-	ND (0.00013)	-	ND (0.00017)	ND (0.00016)	-	
Vinyl chloride	mg/kg		ND (0.0020)		ND (0.0018)	ND (0.0018)	ND (0.00020)	ND (0.00024)	(0.0000.)	ND (0.00023)	(0.000.)	, (0.0000.)	ND (0.00018)		ND (0.00028)		ND (0.00022)		ND (0.00020)		ND (0.012)			ND (0.00018)		ND (0.00022)	ND (0.00022)		
m,p-Xylene	mg/kg	170000	ND (0.0010)	-	ND (0.00092)	ND (0.00091)	ND (0.00035)	145 (0.00010)	(0.0000)	(0.000)	(0.0000.)	ND (0.00044)		-	ND (0.00050)	-	0.00068 J	-	ND (0.00036)	-	ND (0.022)	-	-	ND (0.00032)	-	ND (0.00040)	0.0686	-	-
o-Xylene Xylene (total)	mg/kg		ND (0.0010) ND (0.0010)		ND (0.00092) ND (0.00092)		ND (0.00028) ND (0.00028)							-	ND (0.00039) ND (0.00039)	-	ND (0.00030) 0.00068 J		ND (0.00028) ND (0.00028)	-	ND (0.017) ND (0.017)		1	ND (0.00025) ND (0.00025)	-	ND (0.00031) ND (0.00031)	0.008	-	
	mg/kg	170000	(טויטט.ט) טאיו		14D (U.UUU92)	(0.00091)	14D (U.UUU28)	(0.00034) שאו	(טנטטט.ט) שאו	14D (U.UUU32)	(0.00027) טאו) ND (0.00034)	0.00000 J		(0.00039) שאו		0.00000 J	1	TAD (0.00028)		(ווט.ט) שאו		1	(0.00025) באיז		(ונטטט.ט) שאו	0.0700		
GC/MS Volatile TIC																													
Total TIC, Volatile	mg/kg		0	-	0.0459 J	0	0	0	0.0241 J	0	0	0	0	_	0	-	0	-	0	-	200 J		_	0	_	0	0.0056 J	-	
Total Alkanes	ma/ka		0		0	0	0	0	0	0	0	0	0	_	0		1		0		13 J		_	0	_	0			

Client Sample ID:		NJ Non-	API-SS-1	API-SS-1	API-SS-2	API-SS-2A	API-SS-3A	API-SS-3B	API-SS-4A	API-SS-4B	API-SS-5A	API-SS-5B	API-SS-6A	API-SS-6A	API-SS-6B	API-SS-6B	API-SS-7	API-SS-7	API-SS-7A	API-SS-7A	API-SS-7B	API-SS-7B	API-SS-7B	API-SS-7C	API-SS-7C	API-SS-7D	API-SS-8	API-SS-8	API-SS-8
Lab Sample ID:		Residential Direct Contact	JC2318-1	JC2318-1T	JC2318-2	JC2318-3	JB99639-5	JB99639-6	JB99639-3	JB99639-4	JB99639-1	JB99639-2	JB99546-3	JB99546-3R	JB99546-4	JB99546-4T	JB99428-6	JB99428-6R	JB99546-5	JB99546-5T	JB99546-6	JB99546-6R	JB99546-6RT	JB99546-7	JB99546-7R	JB99546-8	JB99428-4	JB99428-4R	JB99428-4T
Date Sampled: Matrix:		Soil	8/25/2015 Soil	8/25/2015 Soil	8/25/2015 Soil	8/25/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/17/2015 Soil	7/17/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/17/2015 Soil	7/17/2015 Soil	7/17/2015 Soil
Depth:			14.0-14.5 ft	14.0-14.5 ft	14.0-14.5 ft	16.0-16.5 ft	19.0-19.5 ft	27.5-28.0 ft	6.0-6.5 ft	23.5-24.0 ft	15.0-15.5 ft	29.0-29.5 ft	12.0-12.5 ft	12.0-12.5 ft	26.0-26.5 ft	26.0-26.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	6.0-6.5 ft	6.0-6.5 ft	6.0-6.5 ft	12.0-12.5 ft	12.0-12.5 ft	26.0-26.5 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
GC/MS Semi-volatiles (SW846 8270D)																													
2-Chlorophenol	mg/kg	2200	ND (0.078)	-	ND (0.076)	ND (0.074)	ND (0.076)	ND (0.079)	ND (0.076)	ND (0.082)	ND (0.079)	ND (0.085)	ND (0.074)	-	ND (0.10)	-	ND (0.074)	-	ND (0.074)	-	ND (0.076)	-	-	ND (0.075)	-	ND (0.082)	ND (0.071)	-	
4-Chloro-3-methyl phenol 2,4-Dichlorophenol	mg/kg mg/kg	2100	ND (0.20) ND (0.20)	-	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)	ND (0.20) ND (0.20)	ND (0.19) ND (0.19)	ND (0.20) ND (0.20)	ND (0.20) ND (0.20)	ND (0.21) ND (0.21)	ND (0.19) ND (0.19)		ND (0.25) ND (0.25)	-	ND (0.19) ND (0.19)		ND (0.18) ND (0.18)	-	ND (0.19) ND (0.19)		_	ND (0.19) ND (0.19)		ND (0.20) ND (0.20)	ND (0.18) ND (0.18)	-	
2,4-Dimethylphenol	mg/kg	14000	ND (0.20)	-	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.20)	ND (0.19)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.19)	-	ND (0.25)	-	ND (0.19)	-	ND (0.18)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.20)	ND (0.18)	-	-
2,4-Dinitrophenol 4,6-Dinitro-o-cresol	mg/kg mg/kg	1400 68	ND (0.20) ND (0.20)	-	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)	ND (0.20) ND (0.20)	ND (0.19) ND (0.19)	ND (0.20) ND (0.20)	ND (0.20) ND (0.20)	ND (0.21) ND (0.21)	ND (0.19) ND (0.19)	-	ND (0.25) ND (0.25)	-	ND (0.19) ND (0.19)	-	ND (0.18) ND (0.18)	-	ND (0.19) ND (0.19)	-	-	ND (0.19) ND (0.19)	-	ND (0.20) ND (0.20)	ND (0.18) ND (0.18)	-	-
2-Methylphenol 3&4-Methylphenol	mg/kg	3400	ND (0.078) ND (0.078)	-	ND (0.076) ND (0.076)	ND (0.074) ND (0.074)	ND (0.076) ND (0.076)	ND (0.079) ND (0.079)	ND (0.076) ND (0.076)	ND (0.082) ND (0.082)	ND (0.079) ND (0.079)	ND (0.085) ND (0.085)	ND (0.074) ND (0.074)	-	ND (0.10) ND (0.10)		ND (0.074) ND (0.074)	-	ND (0.074) ND (0.074)	-	ND (0.076) ND (0.076)	-	-	ND (0.075) ND (0.075)	-	ND (0.082) ND (0.082)	ND (0.071) ND (0.071)	-	-
2-Nitrophenol	mg/kg mg/kg		ND (0.20)	-	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.20)	ND (0.19)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.19)	-	ND (0.25)	-	ND (0.19)	-	ND (0.18)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.20)	ND (0.18)	-	-
4-Nitrophenol Pentachlorophenol	mg/kg mg/kg	10	ND (0.39) ND (0.20)	-	ND (0.38) ND (0.19)	ND (0.37) ND (0.19)	ND (0.38) ND (0.19)	ND (0.39) ND (0.20)	ND (0.38) ND (0.19)	ND (0.41) ND (0.20)	ND (0.40) ND (0.20)	ND (0.42) ND (0.21)	ND (0.37) ND (0.19)	_	ND (0.51) ND (0.25)	-	ND (0.37) ND (0.19)	-	ND (0.37) ND (0.18)	-	ND (0.38) ND (0.19)	_	_	ND (0.38) ND (0.19)	-	ND (0.41) ND (0.20)	ND (0.35) ND (0.18)	_	
Phenol	mg/kg	210000	ND (0.078)	-	ND (0.076)	ND (0.074)	ND (0.076)	ND (0.079)	ND (0.076)	ND (0.082)	ND (0.079)	ND (0.085)	ND (0.074)	-	ND (0.10)	-	ND (0.074)	-	ND (0.074)	-	ND (0.076)	-	-	ND (0.075)	-	ND (0.082)	ND (0.071)	-	-
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	mg/kg mg/kg	68000	ND (0.20) ND (0.20)		ND (0.19) ND (0.19)	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)	ND (0.20) ND (0.20)	ND (0.19) ND (0.19)	ND (0.20) ND (0.20)	ND (0.20) ND (0.20)	ND (0.21) ND (0.21)	ND (0.19) ND (0.19)	-	ND (0.25) ND (0.25)	-	ND (0.19) ND (0.19)	-	ND (0.18) ND (0.18)	-	ND (0.19) ND (0.19)	-	_	ND (0.19) ND (0.19)	_	ND (0.20) ND (0.20)	ND (0.18) ND (0.18)	-	_
2,4,6-Trichlorophenol	mg/kg	74	ND (0.20)	-	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.20)	ND (0.19)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.19)	-	ND (0.25)	-	ND (0.19)	-	ND (0.18)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.20)	ND (0.18)	-	-
Acenaphthene Acenaphthylene	mg/kg mg/kg	37000 300000	ND (0.039) ND (0.039)	-	ND (0.038) ND (0.038)	ND (0.037) ND (0.037)	ND (0.038) ND (0.038)	ND (0.039) ND (0.039)	ND (0.038) ND (0.038)	ND (0.041) ND (0.041)	ND (0.040) ND (0.040)	ND (0.042) ND (0.042)	ND (0.037) ND (0.037)	-	ND (0.051) ND (0.051)		ND (0.037) ND (0.037)	-	ND (0.037) ND (0.037)	-	0.201 ND (0.038)	-	-	ND (0.038) ND (0.038)	-	ND (0.041) ND (0.041)	ND (0.035) ND (0.035)	-	-
Acetophenone Anthracene	mg/kg	5 30000	ND (0.20)	-	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.20)	ND (0.19)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.19)	-	ND (0.25)		ND (0.19)	-	ND (0.18)	-	ND (0.19) 0.129	-	-	ND (0.19)	-	ND (0.20)	0.0257 J 0.0506	-	-
Atrazine	mg/kg mg/kg	2400	ND (0.039) ND (0.078)	-	ND (0.038) ND (0.076)	ND (0.037) ND (0.074)	ND (0.038) ND (0.076)	ND (0.039) ND (0.079)	ND (0.038) ND (0.076)	ND (0.041) ND (0.082)	ND (0.040) ND (0.079)	ND (0.042) ND (0.085)	ND (0.037) ND (0.074)	-	ND (0.051) ND (0.10)		ND (0.037) ND (0.074)	-	ND (0.037) ND (0.074)	-	0.129 ND (0.076)	-	-	ND (0.038) ND (0.075)	-	ND (0.041) ND (0.082)	0.0506 ND (0.071)	-	-
Benzo(a)anthracene Benzo(a)pyrene	mg/kg	2 0.2	ND (0.039) ND (0.039)		ND (0.038) ND (0.038)	ND (0.037) ND (0.037)	ND (0.038) ND (0.038)	ND (0.039) ND (0.039)	ND (0.038) ND (0.038)	ND (0.041) ND (0.041)	ND (0.040) ND (0.040)	ND (0.042) ND (0.042)	ND (0.037) ND (0.037)	-	ND (0.051) ND (0.051)		0.0175 J 0.0239 J	-	ND (0.037) ND (0.037)	-	0.0223 J ND (0.038)	-	-	ND (0.038) ND (0.038)	_	ND (0.041) ND (0.041)	0.0411 0.0324 J	_	
Benzo(b)fluoranthene	mg/kg mg/kg	2	ND (0.039)	_	ND (0.038)	ND (0.037)	ND (0.038)	ND (0.039)	ND (0.038)	ND (0.041)	ND (0.040)	ND (0.042)	ND (0.037)	-	ND (0.051)	-	0.0239 J 0.0280 J	_	ND (0.037)	-	ND (0.038)	-	-	ND (0.038)	-	ND (0.041)	0.0324 3	-	-
Benzo(g,h,i)perylene Benzo(k)fluoranthene	mg/kg	30000 23	ND (0.039) ND (0.039)		ND (0.038) ND (0.038)	ND (0.037) ND (0.037)	ND (0.038) ND (0.038)	ND (0.039) ND (0.039)	ND (0.038) ND (0.038)	ND (0.041) ND (0.041)	ND (0.040) ND (0.040)	ND (0.042) ND (0.042)	ND (0.037) ND (0.037)		ND (0.051) ND (0.051)	-	0.0351 J ND (0.037)		ND (0.037) ND (0.037)		ND (0.038) ND (0.038)		-	ND (0.038) ND (0.038)	-	ND (0.041) ND (0.041)	0.0286 J 0.0150 J	-	
4-Bromophenyl phenyl ether	mg/kg mg/kg	-	ND (0.039)	-	ND (0.036)	ND (0.037)	ND (0.036)	, ,	ND (0.036)	ND (0.041)	ND (0.040)	ND (0.042)	ND (0.037)	-	ND (0.001)	-	ND (0.037)	-	ND (0.037)	-	ND (0.036)	-	-	ND (0.035)		ND (0.082)	ND (0.071)	-	-
Butyl benzyl phthalate 1,1'-Biphenyl	mg/kg mg/kg	14000 34000	ND (0.078) ND (0.078)		ND (0.076) ND (0.076)	ND (0.074) ND (0.074)	ND (0.076) ND (0.076)	ND (0.079) ND (0.079)	ND (0.076) ND (0.076)	ND (0.082) ND (0.082)	ND (0.079) ND (0.079)	ND (0.085) ND (0.085)	ND (0.074) ND (0.074)	_	ND (0.10) ND (0.10)		0.0577 J ND (0.074)	_	ND (0.074) ND (0.074)	_	ND (0.076) ND (0.076)	_	-	ND (0.075) ND (0.075)		ND (0.082) ND (0.082)	0.153 ND (0.071)	-	
Benzaldehyde	mg/kg	68000	ND (0.20)	-	ND (0.19)	ND (0.19)	(/	ND (0.20)	ND (0.19)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.19)		ND (0.25)		ND (0.19)	-	ND (0.18)	-	ND (0.19)		-	ND (0.19)	-	ND (0.20)	ND (0.18)	-	-
2-Chloronaphthalene 4-Chloroaniline	mg/kg mg/kg		ND (0.078) ND (0.20)	-	ND (0.076) ND (0.19)	ND (0.074) ND (0.19)	ND (0.076) ND (0.19)	ND (0.079) ND (0.20)	ND (0.076) ND (0.19)	ND (0.082) ND (0.20)	ND (0.079) ND (0.20)	ND (0.085) ND (0.21)	ND (0.074) ND (0.19)		ND (0.10) ND (0.25)		ND (0.074) ND (0.19)	-	ND (0.074) ND (0.18)	-	ND (0.076) ND (0.19)		-	ND (0.075) ND (0.19)	_	ND (0.082) ND (0.20)	ND (0.071) ND (0.18)	-	
Carbazole	mg/kg	96	ND (0.078)	-	ND (0.076)	ND (0.074)	ND (0.076)	ND (0.079)	ND (0.076)	ND (0.082)	ND (0.079)	ND (0.085)	ND (0.074)	-	ND (0.10)	-	ND (0.074)	-	ND (0.074)		ND (0.076)	-	-	ND (0.075)	-	ND (0.082)	ND (0.071)	-	
Caprolactam Chrysene	mg/kg mg/kg	340000 230	ND (0.078) ND (0.039)	-	ND (0.076) ND (0.038)	ND (0.074) ND (0.037)	ND (0.076) ND (0.038)	ND (0.079) ND (0.039)	ND (0.076) ND (0.038)	ND (0.082) ND (0.041)	ND (0.079) ND (0.040)	ND (0.085) ND (0.042)	ND (0.074) ND (0.037)	-	ND (0.10) ND (0.051)	-	ND (0.074) 0.0517	-	ND (0.074) ND (0.037)	-	ND (0.076) 0.0331 J	-	-	ND (0.075) ND (0.038)	-	ND (0.082) ND (0.041)	ND (0.071) 0.0537	-	-
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.078)		ND (0.076)	ND (0.074)	ND (0.076)	ND (0.079)	ND (0.076)	ND (0.082)	ND (0.079)	ND (0.085)	ND (0.074)	_	ND (0.10) ND (0.10)		ND (0.074) ND (0.074)	-	ND (0.074)	-	ND (0.076)	_	-	ND (0.075)	-	ND (0.082)	ND (0.071)	-	
bis(2-Chloroethyl)ether bis(2-Chloroisopropyl)ether	mg/kg mg/kg	67	ND (0.078) ND (0.078)	-	ND (0.076) ND (0.076)	ND (0.074) ND (0.074)	ND (0.076) ND (0.076)	ND (0.079) ND (0.079)	ND (0.076) ND (0.076)	ND (0.082) ND (0.082)	ND (0.079) ND (0.079)	ND (0.085) ND (0.085)	ND (0.074) ND (0.074)	-	ND (0.10)		ND (0.074)	-	ND (0.074) ND (0.074)	-	ND (0.076) ND (0.076)	-	-	ND (0.075) ND (0.075)	-	ND (0.082) ND (0.082)	ND (0.071) ND (0.071)	-	
4-Chlorophenyl phenyl ether 2.4-Dinitrotoluene	mg/kg mg/kg	3	ND (0.078) ND (0.039)		ND (0.076) ND (0.038)	ND (0.074) ND (0.037)	ND (0.076) ND (0.038)	ND (0.079) ND (0.039)	ND (0.076) ND (0.038)	ND (0.082) ND (0.041)	ND (0.079) ND (0.040)	ND (0.085) ND (0.042)	ND (0.074) ND (0.037)	-	ND (0.10) ND (0.051)		ND (0.074) ND (0.037)		ND (0.074) ND (0.037)	-	ND (0.076) ND (0.038)	-	-	ND (0.075) ND (0.038)	-	ND (0.082) ND (0.041)	ND (0.071) ND (0.035)	-	
2,6-Dinitrotoluene	mg/kg	3	ND (0.039)	-	ND (0.038)	ND (0.037)	ND (0.038)	ND (0.039)	ND (0.038)	ND (0.041)	ND (0.040)	ND (0.042)	ND (0.037)	-	ND (0.051)		ND (0.037)	-	ND (0.037)	-	ND (0.038)	-	-	ND (0.038)	-	ND (0.041)	ND (0.035)	-	-
3,3'-Dichlorobenzidine 1.4-Dioxane	mg/kg mg/kg	4	ND (0.078) ND (0.039)	-	ND (0.076) ND (0.038)	ND (0.074) ND (0.037)	ND (0.076) ND (0.038)	ND (0.079) ND (0.039)	ND (0.076) ND (0.038)	ND (0.082) ND (0.041)	ND (0.079) ND (0.040)	ND (0.085) ND (0.042)	ND (0.074) ND (0.037)		ND (0.10) ND (0.051)	-	ND (0.074) ND (0.037)	_	ND (0.074) ND (0.037)	-	ND (0.076) ND (0.038)		_	ND (0.075) ND (0.038)	_	ND (0.082) ND (0.041)	ND (0.071) ND (0.035)	_	
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.039)	-	ND (0.038)	ND (0.037)	ND (0.038)	ND (0.039)	ND (0.038)	ND (0.041)	ND (0.040)	ND (0.042)	ND (0.037)	-	ND (0.051)	-	ND (0.037)	-	ND (0.037)		ND (0.038)	-	-	ND (0.038)	-	ND (0.041)	ND (0.035)	-	
Dibenzofuran Di-n-butyl phthalate	mg/kg mg/kg	68000	ND (0.078) ND (0.078)	_	ND (0.076) ND (0.076)	ND (0.074) ND (0.074)	ND (0.076) ND (0.076)	ND (0.079) ND (0.079)	ND (0.076) ND (0.076)	ND (0.082) ND (0.082)	ND (0.079) ND (0.079)	ND (0.085) ND (0.085)	ND (0.074) ND (0.074)	-	ND (0.10) ND (0.10)		ND (0.074) ND (0.074)	-	ND (0.074) ND (0.074)	-	0.112 ND (0.076)	-	-	ND (0.075) ND (0.075)	-	ND (0.082) ND (0.082)	ND (0.071) ND (0.071)	-	-
Di-n-octyl phthalate	mg/kg	27000	ND (0.078)		ND (0.076)	ND (0.074)	ND (0.076)	ND (0.079)	ND (0.076)	ND (0.082)	ND (0.079)	ND (0.085)	ND (0.074)	-	ND (0.10)	-	0.129	-	ND (0.074)	-	ND (0.076)	-	-	ND (0.075)	-	ND (0.082)	ND (0.071)	-	
Diethyl phthalate Dimethyl phthalate	mg/kg mg/kg	550000	ND (0.078) ND (0.078)	-	ND (0.076) ND (0.076)	ND (0.074) ND (0.074)	ND (0.076) ND (0.076)	ND (0.079) ND (0.079)	ND (0.076) ND (0.076)	ND (0.082) ND (0.082)	ND (0.079) ND (0.079)	ND (0.085) ND (0.085)	ND (0.074) ND (0.074)	-	ND (0.10) ND (0.10)		ND (0.074) ND (0.074)	-	ND (0.074) ND (0.074)	-	ND (0.076) ND (0.076)	-	-	ND (0.075) ND (0.075)	-	ND (0.082) ND (0.082)	ND (0.071) ND (0.071)	-	-
bis(2-Ethylhexyl)phthalate	mg/kg	140	ND (0.078) ND (0.039)		ND (0.076) ND (0.038)	ND (0.074) ND (0.037)	ND (0.076) ND (0.038)	ND (0.079) ND (0.039)	0.166 ND (0.038)	ND (0.082) ND (0.041)	ND (0.079) ND (0.040)	ND (0.085) ND (0.042)	ND (0.074) ND (0.037)	-	ND (0.10) ND (0.051)		0.256 0.0273 J	-	ND (0.074) ND (0.037)		0.0694 J 0.0403	-	-	ND (0.075) ND (0.038)		ND (0.082) ND (0.041)	0.184 0.107	-	
Fluoranthene Fluorene	mg/kg mg/kg	24000 24000	ND (0.039) ND (0.039)	-	ND (0.038) ND (0.038)	ND (0.037) ND (0.037)	ND (0.038) ND (0.038)	ND (0.039) ND (0.039)	ND (0.038)	ND (0.041) ND (0.041)	ND (0.040) ND (0.040)	ND (0.042) ND (0.042)	ND (0.037) ND (0.037)	-	ND (0.051) ND (0.051)		0.0273 J ND (0.037)	-	ND (0.037) ND (0.037)	-	0.0403	-	-	ND (0.038) ND (0.038)	-	ND (0.041) ND (0.041)	0.107 ND (0.035)	-	-
Hexachlorobenzene Hexachlorobutadiene	mg/kg mg/kg	1 25	ND (0.078) ND (0.039)		ND (0.076) ND (0.038)	ND (0.074) ND (0.037)	ND (0.076) ND (0.038)	ND (0.079) ND (0.039)	ND (0.076) ND (0.038)	ND (0.082) ND (0.041)	ND (0.079) ND (0.040)	ND (0.085) ND (0.042)	ND (0.074) ND (0.037)	-	ND (0.10) ND (0.051)		ND (0.074) ND (0.037)		ND (0.074) ND (0.037)	-	ND (0.076) ND (0.038)	-	_	ND (0.075) ND (0.038)		ND (0.082) ND (0.041)	ND (0.071) ND (0.035)	-	
Hexachlorocyclopentadiene	mg/kg	110	ND (0.039)		ND (0.038)	ND (0.037)	ND (0.038)	ND (0.039)	ND (0.38)	ND (0.041)	ND (0.40)	ND (0.42)	ND (0.037)		ND (0.031)	<u> </u>	ND (0.037)	<u> </u>	ND (0.037)	-	ND (0.038)		-	ND (0.038)		ND (0.41)	ND (0.035)	-	
Hexachloroethane Indeno(1,2,3-cd)pyrene	mg/kg mg/kg	140	ND (0.20) ND (0.039)		ND (0.19) ND (0.038)	ND (0.19) ND (0.037)	ND (0.19) ND (0.038)	ND (0.20) ND (0.039)	ND (0.19) ND (0.038)	ND (0.20) ND (0.041)	ND (0.20) ND (0.040)	ND (0.21) ND (0.042)	ND (0.19) ND (0.037)		ND (0.25) ND (0.051)		ND (0.19) 0.0218 J		ND (0.18) ND (0.037)	-	ND (0.19) ND (0.038)			ND (0.19) ND (0.038)		ND (0.20) ND (0.041)	ND (0.18) 0.0206 J	-	
Isophorone	mg/kg	2000	ND (0.078)		ND (0.076)		ND (0.076)	ND (0.079)	ND (0.076)	ND (0.082)	ND (0.079)	ND (0.085)	ND (0.074)	-	ND (0.10)		ND (0.074)	-	ND (0.074)	-	ND (0.076)	-	-	ND (0.075)	-	ND (0.082)	ND (0.071)	-	-
2-Methylnaphthalene 2-Nitroaniline	mg/kg mg/kg	2400	ND (0.078) ND (0.20)	-	ND (0.076) ND (0.19)	ND (0.074) ND (0.19)	. ,		0.0292 J ND (0.19)	ND (0.082) ND (0.20)	ND (0.079) ND (0.20)	ND (0.085) ND (0.21)	ND (0.074) ND (0.19)	-	ND (0.10) ND (0.25)		ND (0.074) ND (0.19)	-	ND (0.074) ND (0.18)	-	ND (0.076) ND (0.19)	-	-	ND (0.075) ND (0.19)	-	ND (0.082) ND (0.20)	0.0290 J ND (0.18)	-	-
3-Nitroaniline	mg/kg		ND (0.20)		ND (0.19)	ND (0.19)	ND (0.19)	ND (0.20)	ND (0.19)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.19)	-	ND (0.25)	-	ND (0.19)		ND (0.18)		ND (0.19)	-	-	ND (0.19)	-	ND (0.20)	ND (0.18)	-	
4-Nitroaniline Naphthalene	mg/kg mg/kg	- 17	ND (0.20) ND (0.039)	-	ND (0.19) ND (0.038)		ND (0.19) ND (0.038)		ND (0.19) ND (0.038)	ND (0.20) ND (0.041)			ND (0.19) ND (0.037)	-	ND (0.25) ND (0.051)		ND (0.19) ND (0.037)	-	ND (0.18) ND (0.037)	-	ND (0.19) ND (0.038)	-	-	ND (0.19) ND (0.038)	-	ND (0.20) ND (0.041)	ND (0.18) 0.0144 J	-	-
Nitrobenzene	mg/kg	340	ND (0.078)		ND (0.076)	ND (0.074)	ND (0.076)	ND (0.079)	ND (0.076)	ND (0.082)	ND (0.079)	ND (0.085)	ND (0.074)		ND (0.10)	-	ND (0.074)		ND (0.074)	-	ND (0.076)		-	ND (0.075)	-	ND (0.082)	ND (0.071)	_	-
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	mg/kg mg/kg	0.3 390	ND (0.078) ND (0.20)	-	ND (0.076) ND (0.19)	ND (0.074) ND (0.19)	ND (0.076) ND (0.19)	ND (0.079) ND (0.20)	ND (0.076) ND (0.19)	ND (0.082) ND (0.20)	ND (0.079) ND (0.20)	ND (0.085) ND (0.21)	ND (0.074) ND (0.19)	-	ND (0.10) ND (0.25)		ND (0.074) ND (0.19)	-	ND (0.074) ND (0.18)	-	ND (0.076) ND (0.19)	-	-	ND (0.075) ND (0.19)	-	ND (0.082) ND (0.20)	ND (0.071) ND (0.18)	-	-
Phenanthrene Pyrene	mg/kg mg/kg	300000 18000	ND (0.039) ND (0.039)		ND (0.038) ND (0.038)	ND (0.037)	ND (0.038) ND (0.038)	(/	ND (0.038)	ND (0.041) ND (0.041)	ND (0.040)	ND (0.042)	ND (0.037) ND (0.037)	-	ND (0.051) ND (0.051)		0.0271 J 0.0417		ND (0.037) ND (0.037)	-	ND (0.038) 0.0648	-	-	ND (0.038) ND (0.038)	_	ND (0.041) ND (0.041)	0.133	-	
1,2,4,5-Tetrachlorobenzene	mg/kg mg/kg	10000	ND (0.039) ND (0.20)	-	ND (0.038) ND (0.19)	V /	ND (0.038)	(/	()	(/	(/	(/	(/	-	ND (0.051) ND (0.25)	-	0.0417 ND (0.19)	-	ND (0.037) ND (0.18)	-	0.0648 ND (0.19)	-	-	ND (0.038) ND (0.19)	-	ND (0.041) ND (0.20)		-	-
GC/MS Semi-volatile TIC																													
Total TIC, Semi-Volatile	mg/kg	-	1.38 J	-	0	0	0.26 J	0.43 J	0.89 J	0.28 J	0	7.63 J	0.61 J	-	1.5 J	-	2.66 J	-	0.73 J	-	20.54 J	-	-	0.37 J	-	0	3.66 J	-	-
Total Alkanes	mg/kg		0		0	0	0	0	0	0	0	1.98 J	0	_	1.11 J		0		0	-	5.29 J	-		0	-	0	0	-	

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results - AOC-34

Client Sample ID:			API-SS-1	API-SS-1	API-SS-2	API-SS-2A	API-SS-3A	API-SS-3B	API-SS-4A	API-SS-4B	API-SS-5A	API-SS-5B	API-SS-6A	API-SS-6A	API-SS-6B	API-SS-6B	API-SS-7	API-SS-7	API-SS-7A	API-SS-7A	API-SS-7B	API-SS-7B	API-SS-7B	API-SS-7C	API-SS-7C	API-SS-7D	API-SS-8	API-SS-8	API-SS-8
·		NJ Non- Residential																											
Lab Sample ID:		Direct Contact	JC2318-1	JC2318-1T	JC2318-2	JC2318-3	JB99639-5		JB99639-3	JB99639-4	JB99639-1	JB99639-2	JB99546-3	JB99546-3R	JB99546-4	JB99546-4T	JB99428-6	JB99428-6R	JB99546-5	JB99546-5T	JB99546-6	JB99546-6R	JB99546-6RT	JB99546-7	JB99546-7R	JB99546-8	JB99428-4	JB99428-4R	JB99428-4T
Date Sampled: Matrix:		Soil	8/25/2015 Soil	8/25/2015 Soil	8/25/2015 Soil	8/25/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/21/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/17/2015 Soil	7/17/2015 Soil	7/20/2015 Soil	7/20/2015 Soil	7/17/2015 Soil	7/17/2015 Soil	7/17/2015 Soil						
Depth:			14.0-14.5 ft				19.0-19.5 ft						12.0-12.5 ft			26.0-26.5 ft	0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	6.0-6.5 ft	6.0-6.5 ft	6.0-6.5 ft	12.0-12.5 ft			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
•			14.0-14.5 11	14.0-14.510	14.0-14.511	10.0-10.310	19.0-19.5 11	27.5-20.0 10	0.0-0.5 11	23.3-24.0 11	13.0-13.311	25.0-25.5 11	12.0-12.5 11	12.0-12.510	20.0-20.3 11	20.0-20.3 11	0.5-1.0 10	0.5-1.0 10	1.5-2.0 10	1.5-2.0 10	0.0-0.3 11	0.0-0.3 11	0.0-0.5 It	12.0-12.310	12.0-12.5 10	20.0-20.3 11	1.5-2.0 11	1.3-2.0 11	1.5-2.0 10
GC Semi-volatiles (NJDEP EPH)																													
EPH (C9-C28)	mg/kg	-												ND (4.7)					-			2290			ND (4.8)		-		93.6
EPH (>C28-C40) Total EPH (C9-C40)	mg/kg	-										-	-	ND (4.7)	-	-		-		-		257 2550	-		ND (4.8) ND (4.8)				212 306
C10-C12 Aromatics	mg/kg mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	ND (4.7)	-	-	-	-	-	-	-	2550	14.2	-	ND (4.8)	-	-	-	300
C12-C16 Aromatics	mg/kg	-				_				-	-						_		_	-	_	_	89.4	_	_			_	-
C16-C21 Aromatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	229	-	-	-	-	-	-
C21-C36 Aromatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	_	-	-	_	71.4	-	-	-	-	-	
Total Aromatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	404	-	-	-	-	-	
C9-C12 Aliphatics C12-C16 Aliphatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94.7 295	-	-	-	-	-	-
C16-C21 Aliphatics	mg/kg mg/kg			_	_	_	_	_		_	_		_	_		_		_	_	_	_		202	_	_	_		_	
C21-C40 Aliphatics	mg/kg				-		-	-	1 -	_	-	-				-		-	_		-		103	-		-	_	-	-
Total Aliphatics	mg/kg	-									-										-		694						-
Total EPH	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1100	-	-	-	-	-	-
Metals Analysis																													
Aluminum	mg/kg	NA	10900		7730	1730	2160	966	3250	2020	5780	5850	7510		4280	_	9510	_	11000	_	10700		_	8140		7270	8470	_	
Antimony	mg/kg	450	ND (2.5)	-	ND (2.2)	ND (2.2)	<2.2	<2.3	<2.2	<2.6	<2.4	<2.5	<2.3	-	<3.0	-	<2.3	-	<2.4	-	<2.3	-	-	<2.2	-	<2.6	<2.2	-	-
Arsenic	mg/kg	19	7.5	-	3.3	ND (2.2)	<2.2	<2.3	4.7	<2.6	<2.4	<2.5	4.3		<3.0	-	3.4	-	6.4	-	4.1		_	4.2	_	<2.6	3.4	_	
Barium	mg/kg	59000	66	-	46.8	ND (22)	<22	<23	<22	<26	59.4	47.6	121	-	56.7	-	53.6	-	81.2	-	147	-	-	83.5		33.7	68.1	-	-
Beryllium Cadmium	mg/kg	140 78	0.67	-	0.57	ND (0.22)	<0.22 <0.56	<0.23 <0.59	0.3 <0.55	0.82 <0.64	0.46 <0.59	2.4 <0.62	0.57 <0.57	-	2.1 <0.76	-	0.55 0.82	-	0.63 <0.61	-	0.82 <0.58	-	-	0.52 <0.56	-	1.3 <0.65	0.36 1.1	-	
Calcium	mg/kg mg/ka	76	ND (0.62) 1800	_	ND (0.55) 1490	ND (0.55) ND (550)	<560	<590	<550	<640	1180	1750	13300	_	2130	_	56100	_	1350	_	1760		_	1610	_	1520	75900	_	
Chromium	mg/kg		23.1	-	15.4	4.6	6	4.6	13.4	4.9	12.6	38.7	16.4	_	63.3		42.2		22.1		19.4	_	-	19.3		16	25.4	-	_
Chromium, Hexavalent	mg/kg	-		ND (0.51)												1.6		1.3		0.56								<0.44	-
Cobalt	mg/kg		8.1	-	10.5	ND (5.5)	<5.6	<5.9	<5.5	<6.4	6.8	8.6	8.8	-	8.9	-	<5.7	-	9.5	-	10.4	-	-	7	-	<6.5	<5.4	-	-
Copper	mg/kg	45000	19.2 24500		10.2 15300	5.9	<2.8	<2.9	6.6	<3.2	8	14.4	12.6		10.5 1600	-	55.9 13700	-	15.4	-	15 19400		-	11.7 19300		23.9 1160	30.9 12200		
Lead	mg/kg mg/kg	800	23.1	_	8.6	3010 ND (2.2)	1200 <2.2	452 <2.3	14900 4.6	9100 2.9	11200 5.5	5030 7.9	17800 8.4	_	5.6	_	14.7	_	24500 9.5	_	9.2		_	8 1	_	9.3	71.2	_	
Magnesium	mg/kg	000	3610	-	2840	ND (550)	<560	<590	1160	<640	2340	<620	4130	_	<760		6920		4290	_	4800	_		4350		<650	6990	-	
Manganese	mg/kg	5900	214	-	557	32.3	15.7	3.1	91.6	4.4	317	16.9	760	-	20.4	1	297	1	254	-	332	-	-	188	-	15.3	175	-	-
Mercury	mg/kg	65	ND (0.032)	-	ND (0.035)	ND (0.036)	< 0.034	<0.036	<0.035	<0.040	<0.038	< 0.039	<0.038	-	<0.047	-	<0.036	-	<0.040	-	<0.038	-	-	<0.034	-	<0.043	0.1	-	-
Nickel	mg/kg	23000	17.1		16.6	ND (4.4)	<4.5	<4.7	7.2	<5.1	10.4	10.6	18.3		7.8	-	41	-	19	-	24.7		_	17		10.5	40.3	-	
Potassium Selenium	mg/kg mg/kg	5700	1930 ND (2.5)	-	1620 ND (2.2)	ND (1100) ND (2.2)	<1100 <2.2	<1200 <2.3	<1100 <2.2	<1300 <2.6	1370 <2.4	<1200 <2.5	2000 <2.3	-	<1500 <3.0	-	<1100 <2.3	-	2100 <2.4	-	2310 <2.3	-	-	2080 <2.2		<1300 <2.6	<1100 <2.2	-	
Silver	mg/kg	5700	ND (2.5) ND (0.62)		ND (2.2) ND (0.55)	ND (2.2)	<0.56	<0.59	<0.55	<0.64	<0.59	<0.62	<0.57		<0.76	_	<0.57		<0.61	-	<0.58	_	_	<0.56	_	<0.65	<0.54	_	
Sodium	mg/kg		ND (1200)	-	ND (1100)	ND (1100)	<1100	<1200	<1100	<1300	<1200	<1200	<1100	-	<1500	-	<1100	<u>-</u>	<1200	-	<1200	-	-	<1100		<1300	<1100	-	
Sulfur	mg/kg			-	-	-	-	-		-		-	-		-	-	-	-	_	-	-	_	-	-	-	-	-	-	
Thallium	mg/kg	79	ND (1.2)		ND (1.1)	ND (1.1)	<1.1	<1.2	<1.1	<1.3	<1.2	<1.2	<1.1		<1.5	-	<1.1	-	<1.2	-	<1.2		-	<1.1		<1.3	<2.2 b	-	
Vanadium	mg/kg	1100	31.5	-	24.8	12.6	8.6	<5.9	14.5 22.7	<6.4	18 24.7	49.3	22.1		112	-	31.8 458	-	28.3 46.4	-	24.7		-	25.2		25.2 17	23.5	-	
Zinc	mg/kg	110000	49.5		36.9	ND (5.5)	9.2	6.2	22.1	9.4	24.1	39.5	36.6		36.1		458		46.4		50.2			44.8		17	308		
General Chemistry																													
Iron, Ferrous	%	-		0.77 b	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
Nitrogen, Ammonia	mg/kg		46.7		ND (2.7)	ND (2.7)	<2.8	<2.7	2.9	<3.0	<2.5	<3.1	<2.7		<3.7		<2.7		34.9		<2.8			7.7		<3.0	<2.7		
Redox Potential Vs H2 Solids. Percent	mv %	-	255	1	-	-	- 07.4	- 04.5	- 07.0	- 01.1	- 04.0	70.5	-	-	-	522	- 00.7	444	- 00.0	531	- 00.7	-	-	- 00.7	-	- 75.0	- 04.0	416	
Solids, Percent	%		78.6		87.7	87.5	87.4	84.5	87.3	81.1	84.2	78.5	88		65.4		88.7	_	80.6	1	86.7			86.7		75.9	91.6		
Sulfide Screen	1.0		-	NEGATIVE d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	_	-	-		-	
Sulfide, Neutral Extraction	mg/kg		ND (5.1)	CATIVE	ND (4.5)	ND (4.4)	<4.4	<4.7	4.6	4.9	<4.6	<5.0	<4.5		<6.0		<4.4		4.9		<4.5		-	<4.5		<5.2	<4.3		
Total Organic Carbon	mg/kg		_	8280°		-	-			-		-	-			_	_	-	_	-	-		-	_		-	-	-	
pH	su	-	6.85	6.94	7.57	7.83	7.45	6.3	7.35	6.89	7.87	6.8	8.58	-	6.5	7.41	11.72	11.48	7.52	7.76	7.07	-	-	4	-	6.68	11.93	11.8	-

All results in mg/kg unless otherwise noted.

milligrams per kilogram mg/kg
Estimated Value J
Not Sampled NS
Not Detected ND

Not Analyzed NA
Method Detection Limit ()
Compound Found in Blank B

Compound Found in Blank
Health based standard defaults to soil saturation limit

*

esult is from 2nd run a

Exceeds NJDEP Non-Residential Soil Remediation Standard

Client Sample ID:		NJ Non-	ILF-SS-1	ILF-SS-1A	ILF-SS-2	ILF-SS-2A	ILF-SS-3	ILF-SS-3A	ILF-SS-4	ILF-SS-4A
Lab Sample ID:		Residential	JB99944-12	JB99944-13	JB99944-10	JB99944-11	JB99944-7	JB99944-6	JB99944-8	JB99944-9
Date Sampled:		Direct Contact Soil	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015
Sample Depth:		3011	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Volatiles (SW846 8260C	;)									
Acetone	mg/kg	NA	0.0088 J	0.0629	0.0128	0.0289	0.0552	0.027	0.0070 J	0.0861
Benzene	mg/kg	5	0.0012	0.0029	ND (0.00015)	ND (0.00012)	ND (0.00017)	0.00078	0.00020 J	0.0092
Bromochloromethane	mg/kg	-	ND (0.00034)	ND (0.00039)	ND (0.00035)	ND (0.00027)	ND (0.00039)	ND (0.00040)	ND (0.00031)	ND (0.00074)
Bromodichloromethane	mg/kg	3	ND (0.00017)	ND (0.00020)	ND (0.00018)	ND (0.00014)	ND (0.00020)	ND (0.00020)	ND (0.00016)	ND (0.00037)
Bromoform	mg/kg	280	ND (0.00026)	ND (0.00030)	ND (0.00027)	ND (0.00021)	ND (0.00030)	ND (0.00030)	ND (0.00024)	ND (0.00056)
Bromomethane	mg/kg	59 44000	ND (0.00040)	ND (0.00046)	ND (0.00042) ND (0.0022)	ND (0.00032) 0.0047 J	ND (0.00046) 0.0095 J	ND (0.00047) 0.0044 J	ND (0.00037)	ND (0.00087) 0.0243
2-Butanone (MEK)	mg/kg mg/kg	110000	ND (0.0021) ND (0.00025)	0.0145 0.0022 J	ND (0.0022) ND (0.00026)	0.0047 3	0.0095 J	0.0044 J 0.0010 J	ND (0.0019) ND (0.00023)	0.0243 0.0014 J
Carbon disulfide Carbon tetrachloride	mg/kg	2	ND (0.00025)	ND (0.00029)	ND (0.00026)	ND (0.00020)	ND (0.00029)	ND (0.00029)	ND (0.00023)	ND (0.00055)
Chlorobenzene	mg/kg	7400	ND (0.00023)	0.0169	ND (0.00020)	ND (0.00020)	ND (0.00029)	0.0049	ND (0.00023)	0.017
Chloroethane	mg/kg	1100	ND (0.00053)	ND (0.00061)	ND (0.00055)	ND (0.00042)	ND (0.00061)	ND (0.00062)	ND (0.00049)	ND (0.0011)
Chloroform	mg/kg	2	ND (0.00016)	ND (0.00019)	ND (0.00017)	ND (0.00013)	ND (0.00019)	ND (0.00019)	ND (0.00015)	ND (0.00036)
Chloromethane	mg/kg	12	ND (0.00029)	ND (0.00033)	ND (0.00030)	ND (0.00023)	ND (0.00033)	ND (0.00034)	ND (0.00027)	ND (0.00063)
Cyclohexane	mg/kg	-	ND (0.00035)	0.0020 J	ND (0.00036)	ND (0.00028)	ND (0.00040)	0.0026	ND (0.00032)	0.0149
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00060)	ND (0.00069)	ND (0.00062)	ND (0.00048)	ND (0.00069)	ND (0.00070)	ND (0.00055)	ND (0.0013)
Dibromochloromethane	mg/kg	8	ND (0.00023)	ND (0.00026)	ND (0.00024)	ND (0.00018)	ND (0.00026)	ND (0.00026)	ND (0.00021)	ND (0.00049)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00014)	ND (0.00017)	ND (0.00015)	ND (0.00012)	ND (0.00017)	ND (0.00017)	ND (0.00013)	ND (0.00031)
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00013)	0.00080 J	ND (0.00014)	ND (0.00011)	ND (0.00015)	0.00057 J	ND (0.00012)	0.0018 J
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00017)	0.00028 J	ND (0.00018)	ND (0.00014)	ND (0.00020)	ND (0.00020)	ND (0.00016)	0.0015 J
1,4-Dichlorobenzene	mg/kg	13	ND (0.00025)	0.00061 J	ND (0.00026)	ND (0.00020)	ND (0.00028)	0.00040 J	ND (0.00023)	0.0013 J
Dichlorodifluoromethane	mg/kg	230000	ND (0.00040)	ND (0.00046)	ND (0.00041)	ND (0.00032)	ND (0.00046)	ND (0.00046)	ND (0.00037)	ND (0.00086)
1,1-Dichloroethane	mg/kg	24	ND (0.00016)	ND (0.00018)	ND (0.00016)	ND (0.00012)	ND (0.00018)	ND (0.00018)	ND (0.00014)	ND (0.00034)
1,2-Dichloroethane	mg/kg	3	ND (0.00015)	ND (0.00017)	ND (0.00015)	ND (0.00012)	ND (0.00017)	ND (0.00017)	ND (0.00014)	ND (0.00032)
1,1-Dichloroethene	mg/kg	150 560	ND (0.00065)	ND (0.00075)	ND (0.00068)	ND (0.00052)	ND (0.00075) ND (0.00099)	ND (0.00076)	ND (0.00060)	ND (0.0014)
cis-1,2-Dichloroethene	mg/kg mg/kg	720	ND (0.00086) ND (0.00065)	ND (0.00099) ND (0.00075)	ND (0.00089) ND (0.00068)	ND (0.00068) ND (0.00052)	ND (0.00099)	ND (0.0010) ND (0.00076)	ND (0.00079) ND (0.00060)	ND (0.0019) ND (0.0014)
trans-1,2-Dichloroethene	mg/kg	5	ND (0.0003)	ND (0.00073)	ND (0.0008)	ND (0.00032)	ND (0.00073)	ND (0.00070)	ND (0.00034)	ND (0.0014)
1,2-Dichloropropane cis-1,3-Dichloropropene	mg/kg	7	ND (0.00013)	ND (0.00015)	ND (0.00014)	ND (0.00021)	ND (0.00015)	ND (0.0001)	ND (0.00012)	ND (0.00028)
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00019)	ND (0.00022)	ND (0.00020)	ND (0.00016)	ND (0.00022)	ND (0.00023)	ND (0.00018)	ND (0.00042)
Ethylbenzene	mg/kg	110000	ND (0.00018)	0.00028 J	ND (0.00019)	ND (0.00014)	ND (0.00021)	ND (0.00021)	ND (0.00017)	0.0015 J
Freon 113	mg/kg	-	ND (0.00049)	ND (0.00057)	ND (0.00051)	ND (0.00039)	ND (0.00057)	ND (0.00057)	ND (0.00046)	ND (0.0011)
2-Hexanone	mg/kg	-	ND (0.0015)	ND (0.0017)	ND (0.0015)	ND (0.0012)	ND (0.0017)	ND (0.0017)	ND (0.0014)	ND (0.0032)
Isopropylbenzene	mg/kg	-	ND (0.00012)	0.00022 J	ND (0.00012)	ND (0.000093)	ND (0.00013)	0.00047 J	ND (0.00011)	0.00077 J
Methyl Acetate	mg/kg	NA	ND (0.00095)	ND (0.0011)	ND (0.00099)	ND (0.00076)	ND (0.0011)	ND (0.0011)	ND (0.00088)	ND (0.0021)
Methylcyclohexane	mg/kg	-	ND (0.00025)	0.00073 J	ND (0.00026)	ND (0.00020)	ND (0.00029)	0.0014 J	ND (0.00023)	0.0032 J
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00017)	ND (0.00019)	ND (0.00018)	ND (0.00013)	ND (0.00019)	ND (0.00020)	ND (0.00016)	ND (0.00037)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00050)	ND (0.00058)	ND (0.00053)	ND (0.00040)	ND (0.00058)	ND (0.00059)	ND (0.00047)	ND (0.0011)
Methylene chloride	mg/kg	97	0.0012 J	0.0013 J	ND (0.0011)	0.0012 J	ND (0.0012)	ND (0.0013)	ND (0.0010)	ND (0.0023)
Styrene	mg/kg	260	ND (0.00020)	ND (0.00023)	ND (0.00020)	ND (0.00016)	ND (0.00023)	ND (0.00023)	ND (0.00018)	ND (0.00043)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00019)	ND (0.00022)	ND (0.00020)	ND (0.00015)	ND (0.00022)	ND (0.00022)	ND (0.00018)	ND (0.00042)
Tetrachloroethene	mg/kg	01000	ND (0.00033)	ND (0.00038)	ND (0.00035)	ND (0.00026)	, ,	ND (0.00039)	0.0035	0.0062
Toluene	mg/kg	91000	0.0067 ND (0.00019)	0.0054 ND (0.00022)	0.0062 ND (0.00020)	0.0069 ND (0.00015)	0.0058 ND (0.00022)	0.0074 ND (0.00023)	ND (0.00018)	ND (0.00042)
1,2,3-Trichlorobenzene	mg/kg mg/kg	820	ND (0.00019)	ND (0.00022)	ND (0.00020)	ND (0.00015)	ND (0.00022)	ND (0.00023)	ND (0.00017)	0.0011 J
1,2,4-Trichlorobenzene	mg/kg	4200	ND (0.00015)	ND (0.00021)	ND (0.00013)	ND (0.00013)	ND (0.00021)	ND (0.00022)	ND (0.00017)	ND (0.00036)
1,1,1-Trichloroethane 1,1,2-Trichloroethane	mg/kg	6	ND (0.00016)	ND (0.00019)	ND (0.00017)	ND (0.00013)	ND (0.00019)	ND (0.00019)	ND (0.00015)	ND (0.00035)
Trichloroethene	mg/kg	20	ND (0.00016)	ND (0.00019)	ND (0.00017)	ND (0.00013)	ND (0.00019)	ND (0.00019)	ND (0.00015)	ND (0.00035)
Trichlorofluoromethane	mg/kg	340000	ND (0.00027)	ND (0.00032)	ND (0.00029)	ND (0.00022)	ND (0.00031)	ND (0.00032)	ND (0.00025)	ND (0.00060)
Vinyl chloride	mg/kg	2	ND (0.00022)	ND (0.00025)	ND (0.00023)	ND (0.00017)	ND (0.00025)	ND (0.00025)	ND (0.00020)	ND (0.00047)
m,p-Xylene	mg/kg	170000	ND (0.00039)	0.0027	ND (0.00040)	ND (0.00031)	ND (0.00045)	0.0023	ND (0.00036)	0.0067
o-Xylene	mg/kg	170000	ND (0.00030)	0.0059	ND (0.00031)	ND (0.00024)	ND (0.00035)	0.0062	ND (0.00028)	0.0332
Xylene (total)	mg/kg	170000	ND (0.00030)	0.0086	ND (0.00031)	ND (0.00024)	ND (0.00035)	0.0085	ND (0.00028)	0.0398
GC/MS Volatile TIC										
Total TIC, Volatile	mg/kg	=	0	0.2099 J	0	0	0.031 J	0.177 J	0	0.049 J
Total Alkanes	mg/kg	-	0	0.0509 J	0	0	0	0.044 J	0	0
L			1	1						

Client Sample ID:			ILF-SS-1	ILF-SS-1A	ILF-SS-2	ILF-SS-2A	ILF-SS-3	ILF-SS-3A	ILF-SS-4	ILF-SS-4A
Lab Sample ID:		NJ Non- Residential	JB99944-12	JB99944-13	JB99944-10	JB99944-11	JB99944-7	JB99944-6	JB99944-8	JB99944-9
Date Sampled:		Direct Contact	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015
•		Soil								
Sample Depth:			6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Semi-volatiles (SW846	8270D)									
2-Chlorophenol	mg/kg	2200	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
4-Chloro-3-methyl phenol	mg/kg	-	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
2,4-Dichlorophenol	mg/kg	2100	ND (0.17) ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
2,4-Dimethylphenol 2,4-Dinitrophenol	mg/kg mg/kg	14000 1400	ND (0.17) ND (0.17)	ND (0.22) ND (0.22)	ND (0.18) ND (0.18)	ND (0.19) ND (0.19)	ND (0.43) ND (0.43)	ND (0.22) ND (0.22)	ND (0.19) ND (0.19)	ND (0.32) ND (0.32)
4,6-Dinitro-o-cresol	mg/kg	68	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
2-Methylphenol	mg/kg	3400	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
3&4-Methylphenol	mg/kg	-	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
2-Nitrophenol	mg/kg	-	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
4-Nitrophenol Pentachlorophenol	mg/kg mg/kg	- 10	ND (0.33) ND (0.17)	ND (0.44) ND (0.22)	ND (0.36) ND (0.18)	ND (0.38) ND (0.19)	ND (0.85) ND (0.43)	ND (0.45) ND (0.22)	ND (0.37) ND (0.19)	ND (0.63) ND (0.32)
Phenol	mg/kg	210000	ND (0.17)	ND (0.22)	ND (0.16)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
2,3,4,6-Tetrachlorophenol	mg/kg	-	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
2,4,5-Trichlorophenol	mg/kg	68000	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
2,4,6-Trichlorophenol	mg/kg	74	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
Acenaphthene	mg/kg	37000	ND (0.033)	0.554	ND (0.036)	ND (0.038)	0.0663 J	0.134	ND (0.037)	0.104 ND (0.063)
Acenaphthylene Acetophenone	mg/kg mg/kg	300000 5	ND (0.033) ND (0.17)	0.0218 J ND (0.22)	ND (0.036) ND (0.18)	ND (0.038) ND (0.19)	ND (0.085) ND (0.43)	0.0336 J ND (0.22)	ND (0.037) ND (0.19)	ND (0.063) ND (0.32)
Anthracene	mg/kg	30000	ND (0.17)	0.686	ND (0.036)	ND (0.038)	0.17	0.168	ND (0.19)	0.0598 J
Atrazine	mg/kg	2400	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
Benzo(a)anthracene	mg/kg	2	ND (0.033)	0.585	ND (0.036)	0.0280 J	0.281	0.232	0.0615	0.0429 J
Benzo(a)pyrene	mg/kg	0.2	ND (0.033)	0.444	ND (0.036)	0.0277 J	0.277	0.136	0.057	ND (0.063)
Benzo(b)fluoranthene	mg/kg	2	ND (0.033)	0.449	ND (0.036)	0.0231 J	0.307	0.16	0.0322 J	0.0368 J
Benzo(g,h,i)perylene	mg/kg	30000	ND (0.033)	0.217	ND (0.036)	ND (0.038)	0.142	0.0737	0.0299 J	0.0304 J
Benzo(k)fluoranthene	mg/kg	23	ND (0.033) ND (0.067)	0.147 ND (0.088)	ND (0.036) ND (0.072)	0.0156 J ND (0.075)	0.0962 ND (0.17)	0.0659 ND (0.090)	ND (0.037) ND (0.074)	ND (0.063) ND (0.13)
4-Bromophenyl phenyl ether Butyl benzyl phthalate	mg/kg mg/kg	14000	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
1,1'-Biphenyl	mg/kg	34000	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
Benzaldehyde	mg/kg	68000	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
2-Chloronaphthalene	mg/kg	-	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
4-Chloroaniline	mg/kg	-	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
Carbazole Caprolactam	mg/kg mg/kg	96 340000	ND (0.067) ND (0.067)	0.16 ND (0.088)	ND (0.072) ND (0.072)	ND (0.075) ND (0.075)	0.0607 J ND (0.17)	ND (0.090) ND (0.090)	ND (0.074) ND (0.074)	ND (0.13) ND (0.13)
Chrysene	mg/kg	230	ND (0.033)	0.521	ND (0.072)	0.0226 J	0.29	0.237	0.142	0.0394 J
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
bis(2-Chloroethyl)ether	mg/kg	2	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
bis(2-Chloroisopropyl)ether	mg/kg	67	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
4-Chlorophenyl phenyl ether	mg/kg	-	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
2,4-Dinitrotoluene	mg/kg	3	ND (0.033)	ND (0.044)	ND (0.036)	ND (0.038)	ND (0.085)	ND (0.045)	ND (0.037)	ND (0.063)
2,6-Dinitrotoluene 3,3'-Dichlorobenzidine	mg/kg mg/kg	3 4	ND (0.033) ND (0.067)	ND (0.044) ND (0.088)	ND (0.036) ND (0.072)	ND (0.038) ND (0.075)	ND (0.085) ND (0.17)	ND (0.045) ND (0.090)	ND (0.037) ND (0.074)	ND (0.063) ND (0.13)
1,4-Dioxane	mg/kg	-	ND (0.033)	ND (0.044)	ND (0.036)	ND (0.038)	ND (0.085)	ND (0.045)	ND (0.037)	ND (0.063)
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.033)	0.0605	ND (0.036)	ND (0.038)	ND (0.085)	0.0213 J	0.0159 J	ND (0.063)
Dibenzofuran	mg/kg	-	ND (0.067)	0.122	ND (0.072)	ND (0.075)	ND (0.17)	0.0189 J	ND (0.074)	0.0363 J
Di-n-butyl phthalate	mg/kg	68000	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
Di-n-octyl phthalate	mg/kg	27000 550000	ND (0.067) ND (0.067)	ND (0.088) ND (0.088)	ND (0.072) ND (0.072)	ND (0.075) ND (0.075)	ND (0.17) ND (0.17)	ND (0.090) ND (0.090)	ND (0.074) ND (0.074)	ND (0.13) ND (0.13)
Diethyl phthalate Dimethyl phthalate	mg/kg mg/kg	-	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
bis(2-Ethylhexyl)phthalate	mg/kg	140	ND (0.067)	0.0968	ND (0.072)	ND (0.075)	0.168 J	0.235	ND (0.074)	0.0815 J
Fluoranthene	mg/kg	24000	ND (0.033)	1.89	ND (0.036)	0.0408	0.512	0.796	ND (0.037)	0.123
Fluorene	mg/kg	24000	ND (0.033)	0.427	ND (0.036)	ND (0.038)	ND (0.085)	0.0802	ND (0.037)	0.0738
Hexachlorobenzene	mg/kg	1	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
Hexachlorobutadiene Hexachlorocyclopentadiene	mg/kg mg/kg	25 110	ND (0.033) ND (0.33)	ND (0.044) ND (0.44)	ND (0.036) ND (0.36)	ND (0.038) ND (0.38)	ND (0.085) ND (0.85)	ND (0.045) ND (0.45)	ND (0.037) ND (0.37)	ND (0.063) ND (0.63)
Hexachloroethane	mg/kg	140	ND (0.33) ND (0.17)	ND (0.22)	ND (0.36)	ND (0.38)	ND (0.63)	ND (0.43)	ND (0.37)	ND (0.83)
Indeno(1,2,3-cd)pyrene	mg/kg	2	ND (0.033)	0.245	ND (0.036)	0.0152 J	0.168	0.0708	0.0205 J	ND (0.063)
Isophorone	mg/kg	2000	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
2-Methylnaphthalene	mg/kg	2400	ND (0.067)	0.0584 J	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	0.0452 J
2-Nitroaniline	mg/kg	23000	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
3-Nitroaniline	mg/kg	-	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
4-Nitroaniline Naphthalene	mg/kg mg/kg	- 17	ND (0.17) ND (0.033)	ND (0.22) 0.124	ND (0.18) ND (0.036)	ND (0.19) ND (0.038)	ND (0.43) 0.0383 J	ND (0.22) 0.0417 J	ND (0.19) ND (0.037)	ND (0.32) 0.087
Nitrobenzene	mg/kg	340	ND (0.067)	ND (0.088)	ND (0.036)	ND (0.036)	ND (0.17)	ND (0.090)	ND (0.037)	ND (0.13)
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND (0.067)	ND (0.088)	ND (0.072)	ND (0.075)	ND (0.17)	ND (0.090)	ND (0.074)	ND (0.13)
N-Nitrosodiphenylamine	mg/kg	390	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)
Phenanthrene	mg/kg	300000	ND (0.033)	1.46	ND (0.036)	0.0283 J	0.375	0.0928	0.0171 J	0.112
Pyrene	mg/kg	18000	ND (0.033)	1.86	ND (0.036)	0.0419	0.529	1	0.0688	0.147
1,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.17)	ND (0.22)	ND (0.18)	ND (0.19)	ND (0.43)	ND (0.22)	ND (0.19)	ND (0.32)

Client Sample ID:		NJ Non-	ILF-SS-1	ILF-SS-1A	ILF-SS-2	ILF-SS-2A	ILF-SS-3	ILF-SS-3A	ILF-SS-4	ILF-SS-4A
Lab Sample ID:		Residential	JB99944-12	JB99944-13	JB99944-10	JB99944-11	JB99944-7	JB99944-6	JB99944-8	JB99944-9
Date Sampled:		Direct Contact	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015	7/23/2015
Sample Depth:		Soil	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5	6.0-6.5	13.0-13.5
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Semi-volatile TIC										
Total TIC, Semi-Volatile	mg/kg	-	0	4.48 J	0	0	0.36 J	6.77 J	3.94 J	0.86 J
Total Alkanes	mg/kg	-	0	1.04 J	0	0	0	0	0	0.33 J
GC Semi-volatiles (SW846 808	32A)									
Aroclor 1016	mg/kg	1	ND (0.010)	ND (0.013)	ND (0.011)	ND (0.011)	ND (0.014)	ND (0.013)	ND (0.012)	ND (0.019)
Aroclor 1221	mg/kg	1	ND (0.019)	ND (0.025)	ND (0.020)	ND (0.021)	ND (0.026)	ND (0.024)	ND (0.022)	ND (0.035)
Aroclor 1232	mg/kg	1	ND (0.011)	ND (0.014)	ND (0.011)	ND (0.012)	ND (0.015)	ND (0.014)	ND (0.012)	ND (0.020)
Aroclor 1242	mg/kg	1	ND (0.015)	ND (0.019)	ND (0.016)	ND (0.016)	ND (0.020)	ND (0.019)	ND (0.017)	ND (0.027)
Aroclor 1248	mg/kg	1	ND (0.010)	ND (0.013)	ND (0.011)	ND (0.011)	ND (0.014)	ND (0.013)	ND (0.012)	ND (0.018)
Aroclor 1254	mg/kg	1	ND (0.015)	ND (0.019)	ND (0.015)	ND (0.016)	ND (0.020)	ND (0.018)	ND (0.017)	ND (0.027)
Aroclor 1260	mg/kg	1	ND (0.014)	ND (0.018)	ND (0.015)	ND (0.015)	ND (0.019)	ND (0.017)	ND (0.016)	ND (0.025)
Aroclor 1268	mg/kg	1	ND (0.010)	ND (0.013)	ND (0.011)	ND (0.011)	ND (0.014)	ND (0.013)	ND (0.012)	ND (0.019)
Aroclor 1262	mg/kg	1	ND (0.0093)	ND (0.012)	ND (0.0098)	ND (0.010)	ND (0.013)	ND (0.012)	ND (0.011)	ND (0.017)
Metals Analysis										
Aluminum	mg/kg	NA	3580	10300	4000	4040	10300	6720	6630	26300
Antimony	mg/kg	450	<2.1	<2.6	<2.2	<2.3	<2.7	<2.7	<2.2	<3.8
Arsenic	mg/kg	19	11.1	47.7	10.3	9	19.2	24.1	16.3	232
Barium	mg/kg	59000	<21	199	41.7	25.2	137	126	50	496
Beryllium	mg/kg	140	0.44	0.72	0.64	0.58	0.74	0.52	0.76	2.3
Cadmium	mg/kg	78	<0.53	1.8	<0.55	<0.57	0.8	0.73	<0.55	3.5
Calcium	mg/kg	-	<530	2460	<550	<570	1930	1030	1320	23100
Chromium	mg/kg	-	47.8	70.7	19.9	25.1	38.1	35.5	28.1	161
Chromium, Hexavalent	mg/kg	-	-	-	-	-	-	-	-	-
Cobalt	mg/kg	590	6.1	8.5	6.3	<5.7	10.6	<6.7	8.4	17.1
Copper	mg/kg	45000	23.5	194	30.5	9.1	69.3	83.6	36.7	512
Iron	mg/kg	-	29100	29600	34800	30900	32500	28500	36300	43800
Lead	mg/kg	800	6.7	104	11.6	4.9	33.7	42.3	27.3	362
Magnesium	mg/kg	-	1540	3320	1310	1750	3920	2300	1570	5220
Manganese	mg/kg	5900	180	537	366	172	241	390	150	1430
Mercury	mg/kg	65	<0.034	1.7	0.042	<0.036	0.48	1.9	0.14	5.6
Nickel	mg/kg	23000	11.9	22.6	14.3	12.1	22	15.3	19.7	62
Potassium	mg/kg	-	<1100	2050	<1100	1330	2110	1420	<1100	3730
Selenium	mg/kg	5700	<2.1	3.2	<2.2	<2.3	<2.7	<2.7	<2.2	9.1
Silver	mg/kg	5700	<0.53	1.4	<0.55	<0.57	<0.67	0.75	<0.55	3.4
Sodium	mg/kg	-	<1100	<1300	<1100	<1100	<1300	<1300	<1100	1950
Thallium	mg/kg	79	<1.1	<1.3	<1.1	<1.1	<1.3	<1.3	<1.1	<1.9
Vanadium	mg/kg	1100	23.5	36.9	30.7	32.8	37.9	32	63.4	127
Zinc	mg/kg	110000	43.6	160	65.5	37.8	86.6	80.7	63	469
General Chemistry										
Solids, Percent	%	-	92.8	74.4	88.9	87.5	74.6	73.6	87.7	52.3

All results in mg/kg unless otherwise noted.	milligrams per kilogram	mg/kg
	Estimated Value	J
	Not Sampled	NS
	Not Detected	ND
	Not Analyzed	NA
	Method Detection Limit	()
	Compound Found in Blank	В
	Health based standard defaults to soil saturation limit	**
Exceeds NJDEP Non-Residential Soil Remediation Standard	Result is from 2nd run	a b

Table 4-1 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 38 - Former Ammonia Truck Loading Rack

		NJ Non-	NH3-SS-1	NH3-SS-2	NH3-SS-2	NH3-SS-2	NH3-SS-2	NH3-SS-3	NH3-SS-4	NH3-SS-5	NH3-SS-6
Lab Sample ID:		Residential	JB98904-4	JB98904-5	JB99944-14	JC2396-4	JC2396-4RT	JB98904-6	JB98904-7	JB98904-3	JB98904-8
Date Sampled:		Direct Contact	7/9/2015	7/9/2015	7/23/2015	8/26/2015	8/26/2015	7/9/2015	7/9/2015	7/9/2015	7/9/2015
Sample Depth:		Soil	4.5-5.0 ft	4.5-5.0 ft	4.5-5.0 ft	4.5-5.0 ft	4.5-5.0 ft	6.5-7.0 ft	3.5-4.0 ft	4.5-5.0 ft	4.5-5.0 ft
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Volatiles (SW846 8260C)											
Acetone	mg/kg	NA	-	-	0.0307	0.0588	-	-	-	-	-
	mg/kg	5	_	-	ND (0.00052)	0.00027 J	_	_	_	_	-
	mg/kg	-	-	-	ND (0.0052)	ND (0.0068)	_	_	_	_	_
	mg/kg	3	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
	mg/kg	280	-	-	ND (0.0052)	ND (0.0068)	-	_	_	-	-
Bromomethane	mg/kg	59	-	-	ND (0.0052)	ND (0.0068)	-	_	_	-	-
2-Butanone (MEK)	mg/kg	44000	_	-	0.0061 J	0.015	-	-	-	-	-
Carbon disulfide	mg/kg	110000	-	-	0.0015 J	ND (0.0027)	-	-	-	-	-
Carbon tetrachloride	mg/kg	2	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Chlorobenzene	mg/kg	7400	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Chloroethane	mg/kg	1100	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
Chloroform	mg/kg	2	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Chloromethane	mg/kg	12	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
Cyclohexane	mg/kg	-	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Dibromochloromethane	mg/kg	8	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
1,2-Dibromoethane	mg/kg	0.04	-	-	ND (0.0010)	ND (0.0014)	-	-	-	-	-
1,2-Dichlorobenzene n	mg/kg	59000	-	-	ND (0.0010)	0.00027 J	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	59000	-	-	ND (0.0010)	0.00033 J	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	13	-	-	ND (0.0010)	0.00080 J	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	230000	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
1,1-Dichloroethane	mg/kg	24	-	-	ND (0.0010)	ND (0.0014)	-	-	-	-	-
1,2-Dichloroethane	mg/kg	3	-	-	ND (0.0010)	ND (0.0014)	-	-	-	-	-
1,1-Dichloroethene	mg/kg	150	-	-	ND (0.0010)	ND (0.0014)	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	560	-	-	ND (0.0010)	ND (0.0014)	-	-	-	-	-
trans-1,2-Dichloroethene n	mg/kg	720	-	-	ND (0.0010)	ND (0.0014)	-	-	-	-	-
1,2-Dichloropropane	mg/kg	5	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	7	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	7	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Ethylbenzene	mg/kg	110000	-	-	ND (0.0010)	0.00033 J	-	-	-	-	-
Freon 113	mg/kg	-	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
2-Hexanone	mg/kg	-	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
Isopropylbenzene	mg/kg	-	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Methyl Acetate	mg/kg	NA	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
Methylcyclohexane	mg/kg	-	-	ı	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Methyl Tert Butyl Ether	mg/kg	320	-	i	ND (0.0010)	ND (0.0014)	-	-	-	-	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-	-	ı	ND (0.0052)	ND (0.0068)	-	-	-	-	-
Methylene chloride	mg/kg	97	-	ı	ND (0.0052)	0.0014 J	-	-	-	-	-
Styrene	mg/kg	260	-	i	ND (0.0021)	ND (0.0027)	-	-	-	-	-
Tert Butyl Alcohol	mg/kg	11000	-	-	ND (0.026)	ND (0.034)	-	-	-	-	-
	mg/kg	3	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
	mg/kg	5	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
	mg/kg	91000	-	-	0.004	0.00028 J	-	-	-	-	-
	mg/kg	-	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
	mg/kg	820	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
	mg/kg	4200	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
	mg/kg	6	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
	mg/kg	20	-	-	ND (0.0010)	ND (0.0014)	-	-	-	-	-
	mg/kg	340000	-	-	ND (0.0052)	ND (0.0068)	-	-	-	-	-
	mg/kg	2	-	-	ND (0.0021)	ND (0.0027)	-	-	-	-	-
	mg/kg	170000	-	-	ND (0.0010)	0.00085 J	-	-	-	-	-
-	mg/kg	170000	-	-	ND (0.0010)	0.00050 J	-	-	-	-	-
Xylene (total)	mg/kg	170000	-	-	ND (0.0010)	0.0013 J	-	-	-	-	-
GC/MS Volatile TIC											
	n				0.040.1		1	1	1		
	mg/kg	-	-	-	0.013 J	0	-	-	-	-	-
Total Alkanes	mg/kg	-	-	-	0	0	-	-	-	-	-

Date Sample Depth: Soil 7/9/2015 7/9	904-3 JB98904-8 2015 7/9/2015 5.0 ft 4.5-5.0 ft oil Soil
Date Sample Depth: Soil 7/9/2015 7/9	2015 7/9/2015 5.0 ft 4.5-5.0 ft oil Soil
Sample Depth: Soil 4.5-5.0 ft 4.5-5.	5.0 ft
Soil	oil Soil
GC/MS Semi-volatiles (SW846 8270D) 2-Chlorophenol mg/kg	
2-Chlorophenol mg/kg 2200 - - ND (0.088) - - -	
4-Chloro-3-methyl phenol mg/kg - - - ND (0.22) -	
4-Chloro-3-methyl phenol mg/kg - - - ND (0.22) -	
2,4-Dimethylphenol mg/kg 14000 - - ND (0.22) - - - 2.4-Dimitrophenol mg/kg 1400 - - ND (0.22) -<	
2,4-Dinitrophenol mg/kg 1400 - - ND (0.22) - <	
4,6-Dinitro-o-cresol mg/kg 68 - - ND (0.22) -	
2-Methylphenol mg/kg 3400 - - ND (0.088) - - - 3&4-Methylphenol mg/kg - - - ND (0.088) - - - 2-Nitrophenol mg/kg - - - ND (0.22) - - - 4-Nitrophenol mg/kg 10 - - ND (0.44) - <t< td=""><td></td></t<>	
38.4-Methylphenol mg/kg - - - ND (0.088) - <td< td=""><td></td></td<>	
2-Nitrophenol mg/kg ND (0.22)	
Pentachlorophenol mg/kg 10 - - ND (0.22) - - -	
Phenol mg/kg 210000 - - ND (0.088) - - -	
2,3,4,6-Tetrachlorophenol mg/kg - - - ND (0.22) -	
2,4,5-Trichlorophenol mg/kg 68000 - - ND (0.22) - - - - - - ND (0.22) - - - - - - ND (0.22) -	
Acenaphthene mg/kg 37000 - - ND (0.044) - - - Acenaphthylene mg/kg 300000 - - 0.0226 J - - - Acetophenone mg/kg 5 - - ND (0.22) - - - Anthracene mg/kg 30000 - - 0.0233 J - - - - Atrazine mg/kg 2400 - - ND (0.088) -	
Acenaphthylene mg/kg 300000 - - 0.0226 J - - - Acetophenone mg/kg 5 - - ND (0.22) - - - Anthracene mg/kg 30000 - - - 0.0233 J - - - Atrazine mg/kg 2400 - - - ND (0.088) - - - - Benzo(a)anthracene mg/kg 2 - - - 0.0400 J - - - - Benzo(a)pyrene mg/kg 0.2 - - - 0.0268 J - - - - Benzo(b/louranthene mg/kg 2 - - - 0.0703 -	
Acetophenone mg/kg 5 - - ND (0.22) - - - Anthracene mg/kg 30000 - - 0.0233 J - - - Atrazine mg/kg 2400 - - ND (0.088) - - - Benzo(a)anthracene mg/kg 2 - - 0.0400 J - - - Benzo(a)pyrene mg/kg 0.2 - - 0.0268 J - - - Benzo(b)fluoranthene mg/kg 2 - - 0.0703 - - - Benzo(g,h,i)perylene mg/kg 30000 - - - 0.0319 J - - -	
Anthracene mg/kg 30000 - - - 0.0233 J - <td></td>	
Atrazine mg/kg 2400 - - ND (0.088) - - - Benzo(a)anthracene mg/kg 2 - - 0.0400 J - - - Benzo(a)pyrene mg/kg 0.2 - - - 0.0268 J - - - Benzo(b)fluoranthene mg/kg 2 - - - 0.0703 - - - Benzo(g,h,i)perylene mg/kg 30000 - - - 0.0319 J - - -	
Benzo(a)anthracene mg/kg 2 - - 0.0400 J - - - Benzo(a)pyrene mg/kg 0.2 - - 0.0268 J - - - Benzo(b)fluoranthene mg/kg 2 - - 0.0703 - - - Benzo(g),h/i)perylene mg/kg 30000 - - - 0.0319 J - - -	
Benzo(b)fluoranthene mg/kg 2 - - 0.0703 - - - Benzo(g,h,i)perylene mg/kg 30000 - - 0.0319 J - - -	+
Benzo(g,h,i)perylene mg/kg 30000 0.0319 J	
Berizo(k)ilidorantiferie iliig/kg 23 0.0218 3	
Butyl benzyl phthalate mg/kg 14000 ND (0.088)	
1,1'-Biphenyl mg/kg 34000 ND (0.088)	
sis(2 chiefsear), said: Ingrig 2	
(
2.4-Dinifrotoluene mg/kg 3 - - ND (0.044) - -	
112 (1111)	
, , , ,	
Diethyl phthalate mg/kg 550000 ND (0.088)	
Simonly Production (1978)	
SIGE ENTINOS/IJETERATE INSING	
Fluoranthene mg/kg 24000 - - 0.0611 - - -	
3-Nitroaniline mg/kg ND (0.22)	
\$ \$	
The cost of the co	
Phenanthrene mg/kg 300000 0.0243 J	
Pyrene mg/kg 18000 0.0676	
1,2,4,5-Tetrachlorobenzene mg/kg ND (0.22)	

Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 38 - Former Ammonia Truck Loading Rack

Client Sample ID:			NH3-SS-1	NH3-SS-2	NH3-SS-2	NH3-SS-2	NH3-SS-2	NH3-SS-3	NH3-SS-4	NH3-SS-5	NH3-SS-6
Lab Sample ID:		NJ Non- Residential	JB98904-4	JB98904-5	JB99944-14	JC2396-4	JC2396-4RT	JB98904-6	JB98904-7	JB98904-3	JB98904-8
Date Sampled:		Direct Contact	7/9/2015	7/9/2015	7/23/2015	8/26/2015	8/26/2015	7/9/2015	7/9/2015	7/9/2015	7/9/2015
Sample Depth:		Soil	4.5-5.0 ft	4.5-5.0 ft	4.5-5.0 ft	4.5-5.0 ft	4.5-5.0 ft	6.5-7.0 ft	3.5-4.0 ft	4.5-5.0 ft	4.5-5.0 ft
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Semi-volatile TIC											
Total TIC, Semi-Volatile	mg/kg	-	-	-	-	8.23 J	-	-	-	-	-
Total Alkanes	mg/kg	-	-	-	-	0.8 J	-	-	-	-	-
GC Semi-volatiles (NJDEP EPI	1)										
EPH (C9-C28)	mg/kg	-	194	713	-	-	-	ND (5.1)	ND (4.6)	ND (4.8)	25.8
EPH (>C28-C40)	mg/kg	-	112	343	-	-	-	17.2	12.1	14.8	17
Total EPH (C9-C40)	mg/kg	-	306	1060	-	-	-	17.2	12.1	14.8	42.8
GC Semi-volatiles (SW846 80	82A)										
Aroclor 1016	mg/kg	1	-	-	_	ND (0.046)	-	-	-	-	-
Aroclor 1221	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Aroclor 1232	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Aroclor 1242	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Aroclor 1248	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Aroclor 1254	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Aroclor 1260	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Aroclor 1268	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Aroclor 1262	mg/kg	1	-	-	-	ND (0.046)	-	-	-	-	-
Metals Analysis											
Aluminum	mg/kg	NA	-	-	_	16000	_	_	-	-	_
Antimony	mg/kg	450	-	-	_	ND (5.6) ^a	-	-	-	-	-
Arsenic	mg/kg	19	-	-	-	74.1 ^a	-	-	-	-	-
Barium	mg/kg	59000	-	-	-	220	-	-	-	-	-
Beryllium	mg/kg	140	-	-	-	0.77	-	-	-	-	-
Cadmium	mg/kg	78	-	-	-	ND (1.4) ^a	-	-	-	-	-
Calcium	mg/kg	-	-	-	-	1180	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	72.5	-	-	-	-	-
Chromium, Hexavalent	mg/kg	-	ı	-	-	-	ND (0.56)	-	-	-	-
Cobalt	mg/kg	590	-	-	-	8.1	-	-	-	-	-
Copper	mg/kg	45000	-	-	-	106 ^a	-	-	-	-	-
Iron	mg/kg	-	-	-	-	62300	-	-	-	-	-
Lead	mg/kg	800	-	-	-	118 ^a	-	-	-	-	-
Magnesium	mg/kg	-	-	-	-	5370	-	-	-	-	-
Manganese	mg/kg	5900	-	-	-	255 ^a	-	-	-	-	-
Mercury	mg/kg	65	-	-	-	1.9	-	-	-	-	-
Nickel	mg/kg	23000	=	-	-	24	-	-	-	-	-
Potassium	mg/kg	5700	-	-	-	4130 ND (5.6) ^a	-	-	-	-	-
Selenium	mg/kg	5700	-	-	-	ND (5.6) ND (1.4) ^a	-	-	-	-	-
Silver Sodium	mg/kg	-	-	-	-	1710	-	-	-	-	-
Thallium	mg/kg mg/kg	79	-	-	-	ND (2.8) ^a	-	-	-	-	-
Vanadium	mg/kg	1100	-	-	-	85.6	-	-	-	-	-
Zinc	mg/kg	110000	-	-	-	84.7 ^a	-	-	-	-	-
General Chemistry	mg/ng										
-	lo.							1			
Iron, Ferrous	% ma/ka	-	63.2	36.6	-	-	-	72.9	- 11.9	36.6	6.6
Nitrogen, Ammonia	mg/kg				-	- 205	-	!			
Redox Potential Vs H2	mv %	-	- 80	- 71.2	- 00 1	385	-	- 82.6	86.7	- 85.1	83.9
Solids, Percent	%	-			88.2	71.9	-	!			
Solids, Percent Sulfide Screen	70	-	-	-	-	-	-	-	-	-	-
Sulfide, Neutral Extraction	malica	-	-					-			
Total Organic Carbon	mg/kg mg/kg	-	-	-	-	-	-	-	-	-	-
pH	su	-	-	-	-	4.48	-	-	-	-	-
Pr	lou.		<u> </u>	<u>-</u>		7.70		<u> </u>			

a Elevated detection limit due	e to dilution required for high interfering ele	ment.

All results in mg/kg unless otherwise noted.

milligrams per kilogram mg/kg
Estimated Value J
Not Sampled NS
Not Detected ND
Not Analyzed NA
Method Detection Limit ()
Compound Found in Blank B
Health based standard defaults to soil saturation limit **

Exceeds NJDEP	Non-Residential	Soil Remediation	Standard

Client Sample ID:		NJ Non- Residential	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-2	VRUPT1-SS-2	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-3	VRUPT1-SS-3	VRUPT1-SS-4	VRUPT1-SS-5	VRUPT1-SS-6	VRUPT1-SS-7	VRUPT1-SS-7
Lab Sample ID:		Direct Contact	JB99429-3	JB99429-3R	JB99429-3T	JB99429-2	JB99429-2T	JC2396-1	JC2396-1R	JC2396-1RT	JB99429-5	JB99429-5T	JC3371-3	JC2112-2	JC2112-1	JC1987-5	JC1987-5T
Date Sampled:		Soil	7/16/2015	7/16/2015	7/16/2015	7/16/2015	7/16/2015	8/26/2015	8/26/2015	8/26/2015	7/16/2015	7/16/2015	9/8/2015	8/21/2015	8/21/2015	8/20/2015	8/20/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	5.0-5.5 ft	5.0-5.5 ft	2.0-2.5 ft	3.0-3.5 ft	4.0-4.5 ft	4.0-4.5 ft	4.0-4.5 ft
GC/MS Volatiles (SW846 8260	IC)																
·		NA		0.0165		-	-	NE (0.000)						1	-	-	ND (0.72)
Acetone Benzene	mg/kg mg/kg	NA 5	-	0.0165 0.00025 J	-	-	-	ND (0.0089) ND (0.00045)	-	-	-	-	-	-	-		ND (0.72)
Bromochloromethane	mg/kg	-		ND (0.00028)	-	-		ND (0.0045)	-	-	-	-	-	_			ND (0.36)
Bromodichloromethane	mg/kg	3	_	ND (0.00014)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	ND (0.14)
Bromoform	mg/kg	280	-	ND (0.00022)	-	-	-	ND (0.0045)	-	-	-	-	-	-	-	-	ND (0.36)
Bromomethane	mg/kg	59	-	ND (0.00033)	-	-	-	ND (0.0045)	-	-	-	-	-	-	-	•	ND (0.36)
2-Butanone (MEK)	mg/kg	44000	-	ND (0.0018)	-	-	-	ND (0.0089)	-	-	-	-	-	-	-	-	ND (0.72)
Carbon disulfide	mg/kg	110000	1	ND (0.00021)	-	-	-	ND (0.0018)	,	-	-	-		-	-	-	0.0914 J
Carbon tetrachloride	mg/kg	2	-	ND (0.00021)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	ND (0.14)
Chlorobenzene	mg/kg	7400	•	ND (0.00014)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	3	ND (0.14)
Chloroethane	mg/kg	1100	-	ND (0.00044)	-	-	-	ND (0.0045)	-	-	-	-	-	-	-	-	ND (0.36)
Chloroform	mg/kg	2	-	ND (0.00014)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	ND (0.14)
Chloromethane	mg/kg	12	-	ND (0.00024) 0.00038 J	-	-	-	ND (0.0045)	-	-	-	-	-	-	-	-	ND (0.36) 3.7
Cyclohexane	mg/kg mg/kg	0.2	-	0.00038 J ND (0.00050)	-	-	-	ND (0.0018) ND (0.0018)	-	-	-	-	-	-	-	-	3.7 ND (0.14)
1,2-Dibromo-3-chloropropane Dibromochloromethane	mg/kg	8	-	ND (0.00030)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-		ND (0.14)
1.2-Dibromoethane	mg/kg	0.04		ND (0.00012)	-	-		ND (0.00089)	-	-	-		-	_			ND (0.072)
1,2-Dichlorobenzene	mg/kg	59000	_	ND (0.00011)	-	-	-	ND (0.00089)		-	-	-	-	-	-	-	ND (0.072)
1,3-Dichlorobenzene	mg/kg	59000		ND (0.00014)	-	-	-	ND (0.00089)		-	-	-	-	-	-	-	ND (0.072)
1,4-Dichlorobenzene	mg/kg	13	-	ND (0.00021)	-	-	-	ND (0.00089)	-	-	-	-	-	-	-	-	ND (0.072)
Dichlorodifluoromethane	mg/kg	230000	-	ND (0.00033)	-	-	-	ND (0.0045)	-	-	-	-	-	-	-	•	ND (0.36)
1,1-Dichloroethane	mg/kg	24	-	ND (0.00013)	-	-	-	ND (0.00089)		-	-		-	-	-		ND (0.072)
1,2-Dichloroethane	mg/kg	3	1	ND (0.00012)	-	-	-	ND (0.00089)	,	-	-	-		-	-	-	ND (0.072)
1,1-Dichloroethene	mg/kg	150		ND (0.00054)	-	-	-	ND (0.00089)		-	-	-	-	-	-	-	ND (0.072)
cis-1,2-Dichloroethene	mg/kg	560	-	ND (0.00072)	-	-	-	ND (0.00089)	-	-	-	-	-	-	-	-	ND (0.072)
trans-1,2-Dichloroethene	mg/kg	720	-	ND (0.00055)	-	-	-	ND (0.00089)	-	-	-	-	-	-	-	-	ND (0.072)
1,2-Dichloropropane	mg/kg	5	-	ND (0.00022)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	ND (0.14)
cis-1,3-Dichloropropene	mg/kg	7	-	ND (0.00011)	-	-	-	ND (0.0018)		-	-	-	-	-	-	-	ND (0.14)
trans-1,3-Dichloropropene	mg/kg	110000	-	ND (0.00016) ND (0.00015)	-	-	-	ND (0.0018)	-	-	-		-	-	-	-	ND (0.14) 32.2
Ethylbenzene	mg/kg	110000		ND (0.00015)	-	-	-	ND (0.00089) ND (0.0045)		-	-		-	-	-	-	32.2 ND (0.36)
Freon 113 2-Hexanone	mg/kg mg/kg	-	-	ND (0.00041)	-	-	-	ND (0.0045)	-	-	-	-	-	-	-		ND (0.36)
Isopropylbenzene	mg/kg	-	_	0.00033 J	-	-	-	ND (0.0018)		-	-	-	-	-	-	-	3 79
Methyl Acetate	mg/kg	NA		ND (0.00079)	-	-	-	ND (0.0045)		-	-	-	-	-	-	-	ND (0.36)
Methylcyclohexane	mg/kg	-	-	0.00098 J	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	12.7
Methyl Tert Butyl Ether	mg/kg	320		ND (0.00014)	-	-	-	ND (0.00089)		-	-		-	-	-	-	30.4
4-Methyl-2-pentanone(MIBK)	mg/kg	-	,	ND (0.00042)	-	-	-	ND (0.0045)	-	-	-	-	-	-	-	-	ND (0.36)
Methylene chloride	mg/kg	97		ND (0.00090)	-	-	-	ND (0.0045)		-	-	-	-	-	-	-	ND (0.36)
Styrene	mg/kg	260	-	ND (0.00016)	-	-	-	ND (0.0018)	-	-	-	,	-	-	-		ND (0.14)
Tert Butyl Alcohol	mg/kg	11000	-	-	-	-	-	ND (0.022)	-	-	-	-	-	-	-	3	-
1,1,2,2-Tetrachloroethane	mg/kg	3	-	ND (0.00016)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	ND (0.14)
Tetrachloroethene	mg/kg	5 91000	-	ND (0.00028) 0.00020 J	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	ND (0.14) 4.93
Toluene	mg/kg mg/kg	91000	-	0.00020 J ND (0.00016)	-	-	-	ND (0.00089) ND (0.0045)	-	-	-	-	-	-	-	-	4.93 ND (0.36)
1,2,3-Trichlorobenzene	mg/kg mg/kg	820	-	ND (0.00016)	-	-	-	ND (0.0045) ND (0.0045)	-	-	-	-	-	-	-		ND (0.36) ND (0.36)
1,1,1-Trichlorobenzene	mg/kg mg/kg	4200	-	ND (0.00016)	-	-	-	ND (0.0045) ND (0.0018)	-	-	-	-	-	-	-		ND (0.36) ND (0.14)
1,1,2-Trichloroethane	mg/kg	6	-	ND (0.00014)	-	-	-	ND (0.0018)	-	-	-	-		-	-	-	ND (0.14)
Trichloroethene	mg/kg	20	-	ND (0.00014)	-	-	-	ND (0.00089)	-	-	-	-	-	-	-	-	ND (0.072)
Trichlorofluoromethane	mg/kg	340000	-	ND (0.00023)	-	-	-	ND (0.0045)	-	-	-	-	-	-	-	-	ND (0.36)
Vinyl chloride	mg/kg	2	-	ND (0.00018)	-	-	-	ND (0.0018)	-	-	-	-	-	-	-	-	ND (0.14)
m,p-Xylene	mg/kg	170000	-	ND (0.00032)	-	-	-	ND (0.00089)		-	-	-	-	-	-	-	32.7
o-Xylene	mg/kg	170000	P	0.00035 J	-	-		ND (0.00089)	-	-	-	'n	-	-	-	÷	2.71
Xylene (total)	mg/kg	170000	-	0.00053 J	-	-	-	ND (0.00089)		-	-	-	-	-	-	-	35.4
GC/MS Volatile TIC																	
	ma/ka			0.723 J		1		0			1			1	1		31.4 J
Total TIC, Volatile Total Alkanes	mg/kg mg/kg		-	0.723 3	1 -	-		0			-	-		-	-		74.5 J
I Viai AifidHes	my/ky		-		1 -		· -		-	1 -		-	· -			-	14.00

Client Sample ID:		NJ Non- Residential	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-2	VRUPT1-SS-2	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-3	VRUPT1-SS-3	VRUPT1-SS-4	VRUPT1-SS-5	VRUPT1-SS-6	VRUPT1-SS-7	VRUPT1-SS-7
Lab Sample ID:		Direct Contact Soil	JB99429-3	JB99429-3R	JB99429-3T	JB99429-2	JB99429-2T	JC2396-1	JC2396-1R	JC2396-1RT	JB99429-5	JB99429-5T	JC3371-3	JC2112-2	JC2112-1	JC1987-5	JC1987-5T
Date Sampled: Matrix:			7/16/2015 Soil	7/16/2015 Soil	7/16/2015 Soil	7/16/2015 Soil	7/16/2015 Soil	8/26/2015 Soil	8/26/2015 Soil	8/26/2015 Soil	7/16/2015 Soil	7/16/2015 Soil	9/8/2015 Soil	8/21/2015 Soil	8/21/2015 Soil	8/20/2015 Soil	8/20/2015 Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	5.0-5.5 ft	5.0-5.5 ft	2.0-2.5 ft	3.0-3.5 ft	4.0-4.5 ft	4.0-4.5 ft	4.0-4.5 ft
GC/MS Semi-volatiles (SW84)	6 8270D)			10-20-0													
Acenaphthene	mg/kg	37000	_	0.0343 J	_	_	_	ND (0.34)		_	_	_		_	_	-	0.619
Acenaphthylene	mg/kg	300000	-	ND (0.0057)	-	-	-	ND (0.34)		-	-	-	-	-	-	-	ND (0.039)
2-Chlorophenol	mg/kg	2200	-	ND (0.034)	-	-	-	ND (0.69)	=	-	-	-	-	-	-	-	ND (0.078)
Anthracene	mg/kg	30000	-	ND (0.0085) 0.0231 J	-	-	-	ND (0.34)	-	-	-	-	-	-	-	-	ND (0.039) 0.0626
Benzo(a)anthracene 4-Chloro-3-methyl phenol	mg/kg mg/kg	-	-	ND (0.071)	-	-	-	ND (0.34) ND (1.7)		-	-		-	-	-		ND (0.19)
Benzo(a)pyrene	mg/kg	0.2	-	0.0182 J	-	-	-	ND (0.34)		-	-	-	-	-	-	-	0.0369 J
2,4-Dichlorophenol	mg/kg	2100	-	ND (0.070)	-	-	-	ND (1.7)	-	-	-	,	-	-	-	-	ND (0.19)
Benzo(b)fluoranthene 2,4-Dimethylphenol	mg/kg mg/kg	14000	-	0.0263 J ND (0.083)	-	-	-	ND (0.34) ND (1.7)	-	-	-	-	-	-	-		0.0567 ND (0.19)
2.4-Dimetnyiphenol	mg/kg	14000	-	ND (0.16)	-	-	-	ND (1.7) ND (1.7)		-	-	-	-	-	-		ND (0.19)
Benzo(g,h,i)perylene	mg/kg	30000	-	ND (0.013)	-	-	-	ND (0.34)	-	-	-	-	-	-	-	-	0.0220 J
Benzo(k)fluoranthene	mg/kg	23	-	ND (0.012)	-	-	-	ND (0.34)	-	-	-		-	-	-	-	0.0182 J
4,6-Dinitro-o-cresol	mg/kg	68 230	-	ND (0.031) 0.0233 J	-	-	-	ND (1.7)	-	-	-	-	-	-	-	-	ND (0.19) 0.0776
Chrysene Dibenzo(a,h)anthracene	mg/kg mg/kg	0.2	-	0.0233 J ND (0.0092)	-	-	-	ND (0.34) ND (0.34)	-	-	-	-	-	-	-	-	0.0776 ND (0.039)
Fluoranthene	mg/kg	24000	-	0.0381	-	-		0.167 J	-	-	-	_		-	-	-	0.204
2-Methylphenol	mg/kg	3400	-	ND (0.050)	-	-	-	ND (0.69)	÷	-	-	-	-	-	-	-	ND (0.078)
3&4-Methylphenol	mg/kg	24000	-	ND (0.042)	-	-	-	ND (0.69)	-	-	-	-	-	-	-	-	ND (0.078)
Fluorene Indeno(1,2,3-cd)pyrene	mg/kg mg/kg	24000	-	0.0697 ND (0.012)	-	-	-	ND (0.34) ND (0.34)	-	-	-	-	-	-	-	-	1.33 0.0253 J
2-Nitrophenol	mg/kg	-	-	ND (0.034)	-	-	-	ND (1.7)	-	-	-	-	-	-	-	-	ND (0.19)
Naphthalene	mg/kg	17	-	0.127	-	-	-	ND (0.34)	=	-	-	-	-	-	-	-	6.9
4-Nitrophenol	mg/kg	10	-	ND (0.12) ND (0.092)	-	-	-	ND (3.4)	-	-	-	-	-	-	-	-	ND (0.39) ND (0.19)
Pentachlorophenol Phenanthrene	mg/kg mg/kg	300000	-	0.0393	-	-	-	ND (1.7) ND (0.34)		-	-		-	-	-		2.51
Pyrene	mg/kg	18000	-	0.0359 J	-	-	-	0.141 J		-	-	-	-	-	-	-	0.279
Phenol	mg/kg	210000	-	ND (0.025)	-	-	-	ND (0.69)	-	-	-		-	-	-	-	0.214
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	ND (0.089)	-	-	-	ND (1.7)		-	-	-	-	-	-	-	ND (0.19)
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	mg/kg mg/kg	68000 74	-	ND (0.084) ND (0.059)	-	-	-	ND (1.7) ND (1.7)		-	-	-	-	-	-	-	ND (0.19) ND (0.19)
Acetophenone	mg/kg	5	-	ND (0.012)	-	-	-	ND (1.7)		-	-	-	-	-	-	-	ND (0.19)
Atrazine	mg/kg	2400	-	ND (0.023)	-	-	-	ND (0.69)	-	-	-		-	-	-	-	ND (0.078)
4-Bromophenyl phenyl ether	mg/kg	-	-	ND (0.016)	-	-	-	ND (0.69)		-	-	-	-	-	-	-	ND (0.078)
Butyl benzyl phthalate 1,1'-Biphenyl	mg/kg mg/kg	14000 34000	-	ND (0.015) ND (0.0075)	-	-	-	ND (0.69) ND (0.69)		-	-	-	-	-	-	-	ND (0.078) 0.636
Benzaldehyde	mg/kg	68000	-	ND (0.0091)	-	-	-	ND (1.7)		-	-	-	-	-	-	-	ND (0.19)
2-Chloronaphthalene	mg/kg	-	-	ND (0.0086)	-	-	-	ND (0.69)	-	-	-		-	-	-	-	ND (0.078)
4-Chloroaniline	mg/kg	- 96	-	ND (0.012)	-	-	-	ND (1.7)	-	-	-	-	-	-	-	-	ND (0.19)
Carbazole Caprolactam	mg/kg mg/kg	340000	-	ND (0.0085) ND (0.024)	-	-	-	ND (0.69) ND (0.69)		-	-	-	-	-	-	-	ND (0.078) ND (0.078)
bis(2-Chloroethoxy)methane	mg/kg	-	-	ND (0.025)	-	-	-	ND (0.69)		-	-	-	-	-	-	-	ND (0.078)
bis(2-Chloroethyl)ether	mg/kg	2	-	ND (0.0088)	-	-	-	ND (0.69)	-	-	-	ı	-	-	-	=	ND (0.078)
bis(2-Chloroisopropyl)ether	mg/kg	67	-	ND (0.013)	-	-	-	ND (0.69)	-	-	=	-	-	=	=	•	ND (0.078)
4-Chlorophenyl phenyl ether 2,4-Dinitrotoluene	mg/kg mg/kg	3	-	ND (0.0080) ND (0.012)	-	-	-	ND (0.69) ND (0.34)	-	-	-		-	-	-	-	ND (0.078) ND (0.039)
2,6-Dinitrotoluene	mg/kg	3	-	ND (0.0081)	-	-	-	ND (0.34) ND (0.34)	-	-	-	-	-	-	-	-	ND (0.039)
3,3'-Dichlorobenzidine	mg/kg	4	-	ND (0.020)	-	-	-	ND (0.69)	-	-	-	-	-	-	-	-	ND (0.078)
1,4-Dioxane	mg/kg	-	-	ND (0.025)	-	-	-	ND (0.34)		-	-	-	-	-	-	-	ND (0.039)
Dibenzofuran Di-n-butyl phthalate	mg/kg mg/kg	68000	-	ND (0.0062) ND (0.010)	-	-	-	ND (0.69) ND (0.69)	-	-	-		-	-	-	-	0.397 ND (0.078)
Di-n-octyl phthalate	mg/kg	27000	-	ND (0.0094)	-	-	-	ND (0.69)	-	-	-	-	-	-	-	-	ND (0.078)
Diethyl phthalate	mg/kg	550000	-	ND (0.0091)	-	-	-	ND (0.69)	-	-	-	-	-	-	-	-	ND (0.078)
Dimethyl phthalate	mg/kg	-	-	ND (0.0076)	-	-	-	ND (0.69)		-	- '	-	-	-	-		ND (0.078)
bis(2-Ethylhexyl)phthalate Hexachlorobenzene	mg/kg mg/kg	140	-	0.0388 J ND (0.010)	-	-	-	ND (0.69) ND (0.69)	-	-	-	-	-	-	-	-	0.0724 J ND (0.078)
Hexachlorobutadiene	mg/kg	25	-	ND (0.013)	-	-	-	ND (0.89) ND (0.34)	-	-	-	-	-	-	-	-	ND (0.078)
Hexachlorocyclopentadiene	mg/kg	110	-	ND (0.014)	-	-		ND (3.4)			-		-		-		ND (0.39)
Hexachloroethane	mg/kg	140	-	ND (0.019)	-	-	-	ND (1.7)		-	- '	-	-	-	-		ND (0.19)
Isophorone 2-Methylnaphthalene	mg/kg	2000 2400	-	ND (0.0065) 0.547	-	-	-	ND (0.69) ND (0.69)	-	-	-	-	-	-	-	-	ND (0.078) 18.4
2-Nitroaniline	mg/kg mg/kg	23000	-	ND (0.018)	-	-	-	ND (0.69) ND (1.7)	-	-	-	-	-	-	-	-	ND (0.19)
3-Nitroaniline	mg/kg		-	ND (0.013)	-	-		ND (1.7)			-		-		-		ND (0.19)
4-Nitroaniline	mg/kg	-	-	ND (0.010)	-	-	-	ND (1.7)	-	-	-	-	-	-	-	-	ND (0.19)
Nitrobenzene	mg/kg	340 0.3	-	ND (0.015) ND (0.011)	-	-	-	ND (0.69) ND (0.69)	-	-	-	-	-	-	-	-	ND (0.078) ND (0.078)
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	mg/kg mg/kg	390	-	ND (0.011) ND (0.0092)	-	-	-	ND (0.69) ND (1.7)	-	-	-	-	-	-	-	-	ND (0.078) ND (0.19)
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	ND (0.0064)	<u> </u>	-		ND (1.7)	-	-	-	_		-	-	-	ND (0.19)
GC/MS Semi-volatile TIC																	
Total TIC, Semi-Volatile	mg/kg			6.66 J	-		_	3.3 J	_			_					80.5 J
Total Alkanes	mg/kg	-	-	0.003	-	-	-	0	-	-	-	-	-	-	-		15.4 J
				•	•												

Client Sample ID:		NJ Non- Residential	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-2	VRUPT1-SS-2	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-1	VRUPT1-SS-3	VRUPT1-SS-3	VRUPT1-SS-4	VRUPT1-SS-5	VRUPT1-SS-6	VRUPT1-SS-7	VRUPT1-SS-7
Lab Sample ID:		Direct Contact	JB99429-3	JB99429-3R	JB99429-3T	JB99429-2	JB99429-2T	JC2396-1	JC2396-1R	JC2396-1RT	JB99429-5	JB99429-5T	JC3371-3	JC2112-2	JC2112-1	JC1987-5	JC1987-5T
Date Sampled:		Soil	7/16/2015	7/16/2015	7/16/2015	7/16/2015	7/16/2015	8/26/2015	8/26/2015	8/26/2015	7/16/2015	7/16/2015	9/8/2015	8/21/2015	8/21/2015	8/20/2015	8/20/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	5.0-5.5 ft	5.0-5.5 ft	2.0-2.5 ft	3.0-3.5 ft	4.0-4.5 ft	4.0-4.5 ft	4.0-4.5 ft
GC Semi-volatiles (NJDEP E	PH)			•	•							<u> </u>	•	<u> </u>	<u> </u>		
EPH (C9-C28)	mg/kg	-	111	-	-	31.6	-	-	-	-	23.8	-	64.4	541	117	2550	-
EPH (>C28-C40)	mg/kg	-	71.4	-	-	26.8	-	-	-	-	31	-	101	159	54.8	82.6	-
Total EPH (C9-C40)	mg/kg	-	182	-	-	58.4	-		-	-	54.8	-	165	700	172	2630	-
C10-C12 Aromatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.8
C12-C16 Aromatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	114
C16-C21 Aromatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200
C21-C36 Aromatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND (12) 354
Total Aromatics	mg/kg mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	354 44.9
C9-C12 Aliphatics C12-C16 Aliphatics	mg/kg	-	-	-	-	-	-	-		-	-	-	-	-	-	-	173
C16-C21 Aliphatics	mg/kg	-	-	-	-	-	-	-		-	-	-	-	-	-	-	163
C21-C40 Aliphatics	mg/kg	-	-	-	-	-	-	1		-	-	-	-	-	-	-	31.5
Total Aliphatics	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	413
Total EPH	mg/kg	-	-	-	-	-	-	-		-	-	-		-	-	-	767
GC Semi-volatiles (SW846 8																	
Aroclor 1016	mg/kg	1	-	ND (0.011)	_	_	_	ND (0.034)		_	_	_	_	_	_	-	ND (0.039)
Aroclor 1221	mg/kg	1	-	ND (0.021)	-	-	-	ND (0.034)	-	-	-	-	-	-	-	-	ND (0.039)
Aroclor 1232	mg/kg	1	-	ND (0.012)	-	-	-	ND (0.034)	-	-	-	-	-	-	-	-	ND (0.039)
Aroclor 1242	mg/kg	1	-	ND (0.016)	-	-	-	ND (0.034)	-	-	-	-	-	-	-	-	ND (0.039)
Aroclor 1248	mg/kg	1	-	ND (0.011)	-	-	-	ND (0.034)	-	-	-	-	-	-	-		ND (0.039)
Aroclor 1254	mg/kg	1	-	ND (0.016)	-	-	-	ND (0.034)	-	-	-	-	-	-	-	1	ND (0.039)
Aroclor 1260	mg/kg	1	-	ND (0.015)	-	-	-	0.0576	-	-	-	-	-	-	-		ND (0.039)
Aroclor 1268	mg/kg	1	-	ND (0.011)	-	-	-	ND (0.034)	-	-	-	-	-	-	-	-	ND (0.039)
Aroclor 1262	mg/kg	1	-	ND (0.010)	-	-	-	ND (0.034)	-	-	-	-	-	-	-	-	ND (0.039)
Metals Analysis																	
Aluminum	mg/kg	NA	-	11400	-	-	-	11100	-	-	-	-	-	-	-		12600
Antimony	mg/kg	450	-	<2.4	-	-	-	ND (4.3) a	-	-	-	-	-	-	-	-	ND (2.5)
Arsenic	mg/kg	19	-	7.5	-	-	-	7.8 °		-	-	-		-	-	-	9.6
Barium	mg/kg	59000	-	84.9	-	-	-	53.5	-	-	-	-	-	-	-	-	98.5
Beryllium	mg/kg	140	-	0.83	-	-	-	0.51	-	-	-	-	-	-	-	٠	0.81
Cadmium	mg/kg	78	-	<0.59 1970	-	-	-	4.8 °	-	-	-	-	-	-	-	-	0.65 1660
Calcium	mg/kg mg/kg	-	-	24	-	-	-	5510 90	-	-	-	-	-	-	-	-	35.3
Chromium Hexavalent	mg/kg	_	-	24	<0.48	-	<0.49	90	3.6	3.9	-	<0.49	-	-			
Cobalt	mg/kg	590	-	11.5	-	-		14	-	-	-	-	-	-	-	-	8.1
Copper	mg/kg	45000	-	44.9	-	-	-	220 a	-	-	-	-	-	-	-		34.4
Iron	mg/kg	-	-	21900	-	-	-	32600		-	-	-	-	-	-	-	22600
Lead	mg/kg	800	-	44.2	-	-		281 ^a	-	-		~	-	-	-	P	32
Magnesium	mg/kg	-	-	4130	-	-	-	7000	=	-	-	-	-	-	-	-	4160
Manganese	mg/kg	5900	-	254	-	-	-	412 a		-	-	-	-	-	-	i	307
Mercury	mg/kg	65	-	0.06	-	-	-	0.21	-	-	-	-	-	-	-	-	0.06
Nickel	mg/kg	23000	-	24	-	-	-	51.5	-	-	-	-	-	-	-	-	19.7
Potassium	mg/kg	5700	-	2070 <2.4	-	-	-	1140 ND (4.3) ^a	-	-	-	-	-	-	-	-	2160 ND (2.5)
Selenium	mg/kg mg/kg	5700	-	<2.4 <0.59	-	-	-	ND (4.3) - 2.7 a	-	-	-	-	-	-	-		ND (2.5) 0.65
Silver Sodium	mg/kg mg/kg	3700	-	<1200	-	-	-	ND (1100)	-	-	-	-	-		-		ND (1300)
Thallium	mg/kg	79	-	<1.2	-	-	-	ND (1100) ND (2.1) a		-	-	-	-	-	-	-	ND (1.3)
Vanadium	mg/kg	1100	-	32.1	-	-	-	137		-	-	-	-	-	-	-	34.6
Zinc	mg/kg	110000	-	99.3	-	-	-	412 a	-	-	-	-	-	-	-	-	74
	100																
General Chemistry						,	,	,						,	,		
Redox Potential Vs H2	mv	-	-	-	525	-	397	-	248	-	-	565	-	- 07.0	-	-	-
Solids, Percent	% su	-	83.6	-	7.48	81.9	6.89	91.7	8.33	-	80.9	5.4	87.1	87.2	86.1	83.1	-
pH	su	-	-	-	1.40	<u> </u>	0.09	-	8.33	-		5.4	<u> </u>		<u> </u>	-	
All regults in malka unless ethe																	

All results in mg/kg unless otherwise noted.

milligrams per kilogram mg/kg

Estimated Value J

Not Sampled NS
Not Detected ND
Not Analyzed NA
Method Detection Limit ()
Compound Found in Blank
Health based standard defaults to sell saturation limit "

* Elevated detection limit due to dilution required for high interfering dement.

* 2

Exceeds NJDEP Non-Residential Soil Remediation Standard

Client Sample ID:		NJ Non-	TELP2-SS-1	TELP2-SS-2	TELP2-SS-3	TELP2-SS-4	TELP2-SS-4	TELP2-SS-5	TELP2-SS-6	TELP2-SS-6
Lab Sample ID:		NJ Non- Residential	JB99834-7	JB99834-8	JB99834-9	JB99834-10	JB99834-10R	JB99834-11	JB99834-12	JB99834-12R
Date Sampled:		Direct	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015
Sample Depth:		Contact Soil	4.0-4.5	4.0-4.5	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	1.0-1.5	1.0-1.5
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Volatiles (SW846 8260	C)									
Acetone	mg/kg	NA	0.0565	0.0102	0.031	0.174 J	-	0.0575	0.0333	-
Benzene	mg/kg	5	0.00026 J	0.0041	0.0028	ND (0.0076)	-	0.00037 J	0.00059	-
Bromochloromethane	mg/kg	-	ND (0.00031)	ND (0.00032)	ND (0.00031)	ND (0.018)	-	ND (0.00044)	ND (0.00031)	
Bromodichloromethane	mg/kg	3	ND (0.00016)	ND (0.00016)	ND (0.00016)	ND (0.0089)	-	ND (0.00022)	ND (0.00016)	
Bromoform	mg/kg	280	ND (0.00024)	ND (0.00024)	ND (0.00024)	ND (0.013)	-	ND (0.00033)	ND (0.00024)	
Bromomethane	mg/kg	59	ND (0.00037)	ND (0.00038)	ND (0.00037)	ND (0.021)	-	ND (0.00052)	ND (0.00037)	
2-Butanone (MEK)	mg/kg	44000	0.0115	ND (0.0020)	ND (0.0019)	ND (0.11)	-	0.0074 J	ND (0.0019)	
Carbon disulfide	mg/kg	110000	0.00058 J	0.0013 J	0.0072	ND (0.013)	-	0.0052	0.0096	
Carbon tetrachloride	mg/kg	2	ND (0.00023)	ND (0.00024)	ND (0.00023)	ND (0.013)	-	ND (0.00033)	ND (0.00023)	
Chlorobenzene	mg/kg	7400	ND (0.00016)	ND (0.00016)	ND (0.00016)	ND (0.0088)	-	ND (0.00022)	ND (0.00016)	-
Chloroethane	mg/kg	1100	ND (0.00049)	ND (0.00050)	ND (0.00048)	ND (0.027)	-	ND (0.00068)	ND (0.00049)	-
Chloroform	mg/kg	2	ND (0.00015)	ND (0.00015)	ND (0.00015)	ND (0.0085)	_	ND (0.00021)	ND (0.00015)	
Chloromethane	mg/kg	12	ND (0.00016)	ND (0.00013)	ND (0.00015)	ND (0.015)	-	ND (0.00021)	ND (0.00013)	
Cyclohexane	mg/kg	-	ND (0.00032)	ND (0.00027)	0.0028	0.41	-	0.00083 J	0.0047	
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00055)	ND (0.00056)	ND (0.00055)	ND (0.031)	-	ND (0.00077)	ND (0.00055)	-
Dibromochloromethane		8	ND (0.00033)	ND (0.00036)	ND (0.00035)	ND (0.031)	-	ND (0.00077)	ND (0.00035)	-
1,2-Dibromoethane	mg/kg	0.04	ND (0.00021) ND (0.00013)	ND (0.00021) ND (0.00014)	ND (0.00021) ND (0.00013)	ND (0.012) ND (0.0074)	-	ND (0.00029) ND (0.00019)	ND (0.00021) ND (0.00013)	-
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00013) ND (0.00012)	ND (0.00014) ND (0.00013)	ND (0.00013) ND (0.00012)	ND (0.0074) ND (0.0069)	-	ND (0.00019) ND (0.00017)	ND (0.00013) ND (0.00012)	-
1.3-Dichlorobenzene	mg/kg		` '	, ,		` '	-		· · · · · ·	
1,4-Dichlorobenzene	mg/kg	59000	ND (0.00016)	ND (0.00016)	ND (0.00016)	ND (0.0089)	-	ND (0.00022)	ND (0.00016)	
Dichlorodifluoromethane	mg/kg	13	ND (0.00023)	ND (0.00023)	ND (0.00023)	ND (0.013)	-	ND (0.00032)	ND (0.00023)	-
1,1-Dichloroethane	mg/kg	230000	ND (0.00036)	ND (0.00037)	ND (0.00036)	ND (0.021)	-	ND (0.00051)	ND (0.00037)	•
1,2-Dichloroethane	mg/kg	24	ND (0.00014)	ND (0.00015)	ND (0.00014)	ND (0.0080)	-	ND (0.00020)	ND (0.00014)	
1,1-Dichloroethane	mg/kg	3	ND (0.00014)	ND (0.00014)	ND (0.00013)	ND (0.0076)	-	ND (0.00019)	ND (0.00014)	-
	mg/kg	150	ND (0.00060)	ND (0.00061)	ND (0.00059)	ND (0.034)		ND (0.00084)	ND (0.00060)	-
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00079)	ND (0.00080)	ND (0.00078)	ND (0.044)	-	ND (0.0011)	ND (0.00079)	
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00060)	ND (0.00061)	ND (0.00060)	ND (0.034)	-	ND (0.00084)	ND (0.00060)	-
1,2-Dichloropropane	mg/kg	5	ND (0.00024)	ND (0.00025)	ND (0.00024)	ND (0.014)	-	ND (0.00034)	ND (0.00024)	-
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	ND (0.00012)	ND (0.00012)	ND (0.0067)	-	ND (0.00017)	ND (0.00012)	-
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00018)	ND (0.00018)	ND (0.00018)	ND (0.010)	-	ND (0.00025)	ND (0.00018)	-
Ethylbenzene	mg/kg	110000	ND (0.00016)	ND (0.00017)	0.0128	0.197	-	ND (0.00023)	0.0033	-
Freon 113	mg/kg	-	ND (0.00045)	ND (0.00046)	ND (0.00045)	ND (0.025)	-	ND (0.00063)	ND (0.00045)	-
2-Hexanone	mg/kg	-	ND (0.0014)	ND (0.0014)	ND (0.0013)	ND (0.076)	-	ND (0.0019)	ND (0.0014)	-
Isopropylbenzene	mg/kg	-	ND (0.00011)	ND (0.00011)	0.0155	10.1	-	0.0034	0.0077	-
Methyl Acetate	mg/kg	NA	ND (0.00087)	ND (0.00089)	ND (0.00086)	ND (0.049)	-	ND (0.0012)	ND (0.00087)	-
Methylcyclohexane	mg/kg	-	ND (0.00023)	ND (0.00023)	0.0178	28.6	-	0.0024 J	0.0101	-
Methyl Tert Butyl Ether	mg/kg	320	0.00092 J	ND (0.00016)	ND (0.00015)	ND (0.0087)	-	ND (0.00022)	ND (0.00016)	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00046)	ND (0.00047)	ND (0.00046)	ND (0.026)	-	ND (0.00065)	ND (0.00047)	-
Methylene chloride	mg/kg	97	ND (0.00099)	ND (0.0010)	0.0016 J	ND (0.056)	-	ND (0.0014)	ND (0.0010)	-
Styrene	mg/kg	260	ND (0.00018)	ND (0.00018)	ND (0.00018)	ND (0.010)	-	ND (0.00025)	ND (0.00018)	-
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00018)	ND (0.00018)	ND (0.00018)	ND (0.0099)	-	ND (0.00025)	ND (0.00018)	-
Tetrachloroethene	mg/kg	5	ND (0.00030)	ND (0.00031)	ND (0.00030)	ND (0.017)	-	ND (0.00043)	ND (0.00031)	-
Toluene	mg/kg	91000	0.0039	0.0029	0.0055	0.0542 J	-	0.0049	0.0041	
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00018)	ND (0.00018)	ND (0.00018)	ND (0.010)	-	ND (0.00025)	ND (0.00018)	-
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00017)	ND (0.00017)	ND (0.00017)	ND (0.0096)	-	ND (0.00024)	ND (0.00017)	-
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00015)	ND (0.00015)	ND (0.00015)	ND (0.0085)	-	ND (0.00021)	ND (0.00015)	-
1,1,2-Trichloroethane	mg/kg	6	ND (0.00015)	ND (0.00015)	ND (0.00015)	ND (0.0084)	-	ND (0.00021)	ND (0.00015)	-
Trichloroethene	mg/kg	20	ND (0.00015)	ND (0.00015)	ND (0.00015)	ND (0.0084)	-	ND (0.00021)	ND (0.00015)	-
Trichlorofluoromethane	mg/kg	340000	ND (0.00025)	ND (0.00026)	ND (0.00025)	ND (0.014)	-	ND (0.00035)	ND (0.00025)	-
Vinyl chloride	mg/kg	2	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.011)	-	ND (0.00028)	ND (0.00020)	-
m,p-Xylene	mg/kg	170000	ND (0.00036)	ND (0.00036)	0.0202	0.189	-	ND (0.00050)	0.0075	-
o-Xylene	mg/kg	170000	ND (0.00028)	ND (0.00028)	0.0104	0.0782	-	ND (0.00039)	0.0072	-
Xylene (total)	mg/kg	170000	ND (0.00028)	ND (0.00028)	0.0306	0.267	-	ND (0.00039)	0.0147	-
GC/MS Volatile TIC										
Total TIC, Volatile	mg/kg		0	0	1.136 J	355 J	-	0.1404 J	0.308 J	-
Total Alkanes	mg/kg		0	0	0.823 J	192 J	-	0.032 J	0.173 J	-
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Client Sample ID:			TELP2-SS-1	TELP2-SS-2	TELP2-SS-3	TELP2-SS-4	TELP2-SS-4	TELP2-SS-5	TELP2-SS-6	TELP2-SS-6
Lab Sample ID:		NJ Non- Residential	JB99834-7	JB99834-8	JB99834-9	JB99834-10	JB99834-10R	JB99834-11	JB99834-12	JB99834-12R
Date Sampled:		Direct	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015	7/22/2015
Sample Depth:		Contact Soil	4.0-4.5	4.0-4.5	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	1.0-1.5	1.0-1.5
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/MS Semi-volatiles (SW846	8270D)									
Acenaphthene	mg/kg	37000	-	-	-	-	0.196	-	-	0.0993
Acenaphthylene	mg/kg	300000	-	-	-	-	ND (0.034)	-	-	ND (0.037)
2-Chlorophenol Anthracene	mg/kg	2200	*	-	-	-	ND (0.068)	-	-	ND (0.074)
4-Chloro-3-methyl phenol	mg/kg mg/kg	30000	-	-	-	-	0.351 ND (0.17)	-	-	0.0713 ND (0.19)
Benzo(a)anthracene	mg/kg	2	-	-	-	-	0.28	-	-	0.312
Benzo(a)pyrene	mg/kg	0.2	-	-	-	-	0.218	-	-	0.254
2,4-Dichlorophenol	mg/kg	2100	-	-	-	-	ND (0.17)	-	-	ND (0.19)
Benzo(b)fluoranthene	mg/kg	2	-	-	-	-	0.264	-	-	0.203
2,4-Dimethylphenol Benzo(g,h,i)perylene	mg/kg	14000	-	-	-	-	ND (0.17)	-	-	ND (0.19)
2,4-Dinitrophenol	mg/kg mg/kg	30000 1400	-	-	-	-	0.156 ND (0.17)	-	-	0.133 ND (0.19)
Benzo(k)fluoranthene	mg/kg	23	-	-	-	-	0.0985	-	-	0.0573
Chrysene	mg/kg	230	-	-	-	-	0.323	-	-	0.499
4,6-Dinitro-o-cresol	mg/kg	68	-	-	-	-	ND (0.17)	-	-	ND (0.19)
Dibenzo(a,h)anthracene	mg/kg	0.2	-	-	-	-	0.0409	-	-	0.0583
Fluoranthene	mg/kg	24000	-	-	-	-	0.989	-	-	0.215
2-Methylphenol Fluorene	mg/kg	3400	-	-	-	-	ND (0.068)	-	-	ND (0.074)
3&4-Methylphenol	mg/kg mg/kg	24000	-	-	-	-	0.477 ND (0.068)	-	-	ND (0.037) ND (0.074)
Indeno(1,2,3-cd)pyrene	mg/kg mg/kg	2	-		-	-	0.136	-	-	0.0867
2-Nitrophenol	mg/kg	-	-	-	-	-	ND (0.17)	-	-	ND (0.19)
4-Nitrophenol	mg/kg	-	-	-	-	-	ND (0.34)	-	-	ND (0.37)
Naphthalene	mg/kg	17	-	-	-	-	9.35	-	-	0.0708
Phenanthrene	mg/kg	300000	-	-	-	-	1.56	-	-	0.0566
Pentachlorophenol Phenol	mg/kg	10	-	-	-	-	ND (0.17)	-	-	ND (0.19)
Pyrene	mg/kg	210000 18000	-	-	-	-	ND (0.068) 0.658	-	-	0.0612 J 0.318
2,3,4,6-Tetrachlorophenol	mg/kg mg/kg	-		-	-	-	ND (0.17)	-	-	ND (0.19)
2,4,5-Trichlorophenol	mg/kg	68000	-	-	-	-	ND (0.17)	-	-	ND (0.19)
2,4,6-Trichlorophenol	mg/kg	74	-	-	-	-	ND (0.17)	-	-	ND (0.19)
Acetophenone	mg/kg	5	-	-	-	-	ND (0.17)	-	-	ND (0.19)
Atrazine	mg/kg	2400	-	-	-	-	ND (0.068)	-	-	ND (0.074)
4-Bromophenyl phenyl ether Butyl benzyl phthalate	mg/kg	-	-	-	-	-	ND (0.068)	-	-	ND (0.074)
1,1'-Biphenyl	mg/kg	14000 34000	-	-	-	-	ND (0.068) ND (0.068)	-	-	ND (0.074) ND (0.074)
Benzaldehyde	mg/kg mg/kg	68000		-	-	-	ND (0.17)	-		ND (0.19)
2-Chloronaphthalene	mg/kg	-	-	-	-	-	ND (0.068)	-	-	ND (0.074)
4-Chloroaniline	mg/kg	-	-	-	-	-	ND (0.17)	-	-	ND (0.19)
Carbazole	mg/kg	96	-	-	-	-	0.164	-	-	ND (0.074)
Caprolactam	mg/kg	340000	-	-	-	-	ND (0.068)	-	-	ND (0.074)
bis(2-Chloroethoxy)methane bis(2-Chloroethyl)ether	mg/kg	-	-	-	-	-	ND (0.068)	-	-	ND (0.074)
bis(2-Chloroisopropyl)ether	mg/kg	2 67	-	-	-	-	ND (0.068) ND (0.068)	-	-	ND (0.074) ND (0.074)
4-Chlorophenyl phenyl ether	mg/kg mg/kg	-		-	-	-	ND (0.068)	-	-	ND (0.074)
2,4-Dinitrotoluene	mg/kg	3	-	-	-	-	ND (0.034)	-	-	ND (0.037)
2,6-Dinitrotoluene	mg/kg	3	-	-	-	-	ND (0.034)	-	-	ND (0.037)
3,3'-Dichlorobenzidine	mg/kg	4	-	-	-	-	ND (0.068)	-	-	ND (0.074)
1,4-Dioxane	mg/kg	-	-	-	-	-	ND (0.034)	-	-	ND (0.037)
Dibenzofuran Di-n-butyl phthalate	mg/kg	-	-	-	-	-	ND (0.068)	-	-	0.0169 J
Di-n-octyl phthalate	mg/kg mg/kg	68000 27000	-	-	-	-	0.0957 ND (0.068)	-	-	ND (0.074) ND (0.074)
Diethyl phthalate	mg/kg mg/kg	550000	-	-	-	-	ND (0.068)	-	-	ND (0.074) ND (0.074)
Dimethyl phthalate	mg/kg	-		-	-	-	ND (0.068)	-	-	ND (0.074)
bis(2-Ethylhexyl)phthalate	mg/kg	140	-	-	-	-	0.161	-	-	ND (0.074)
Hexachlorobenzene	mg/kg	1	-	-	-	-	ND (0.068)	-	-	ND (0.074)
Hexachlorobutadiene	mg/kg	25	-	-	-	-	ND (0.034)	-	-	ND (0.037)
Hexachlorocyclopentadiene Hexachloroethane	mg/kg	110	-	-	-	-	ND (0.34)	-	-	ND (0.37)
Isophorone	mg/kg	140	*	-	-	-	ND (0.17)	-	-	ND (0.19) ND (0.074)
2-Methylnaphthalene	mg/kg mg/kg	2000 2400	-	-	-	-	ND (0.068) 20.4	-	-	0.104
2-Nitroaniline	mg/kg	23000	-	-	-	-	ND (0.17)	-	-	ND (0.19)
3-Nitroaniline	mg/kg	-	-	-	-	-	ND (0.17)	-	-	ND (0.19)
4-Nitroaniline	mg/kg	-	-	-	-	-	ND (0.17)	-	-	ND (0.19)
Nitrobenzene	mg/kg	340	-	-	-	-	ND (0.068)	-	-	ND (0.074)
N-Nitroso-di-n-propylamine	mg/kg	0.3	-	-	-	-	ND (0.068)	-	-	ND (0.074)
N-Nitrosodiphenylamine 1,2,4,5-Tetrachlorobenzene	mg/kg	390	-	-	-	-	ND (0.17)	-	-	ND (0.19)
	mg/kg		_	-	-	-	ND (0.17)	-	-	ND (0.19)
GC/MS Semi-volatile TIC										
Total TIC, Semi-Volatile	mg/kg	-	-	-	-	-	30.49 J	-	-	12.41 J
Total Alkanes	mg/kg	-	-	-	-	-	- 11.0.1	-	-	2.00 1
Total Alkanes	mg/kg	-	-	-	-	-	11.8 J	-	-	3.08 J
GC Volatiles (SW846 8015C)										
TPH-GRO (C6-C10)	mg/kg	-	-	-	-	-	-	-	-	-

Manages Part Manages Part Manages	Client Sample ID:			TELP2-SS-1	TELP2-SS-2	TELP2-SS-3	TELP2-SS-4	TELP2-SS-4	TELP2-SS-5	TELP2-SS-6	TELP2-SS-6
Does Does Does Does Does Progness Prognes			NJ Non-								
Section Control of Section Control of Section Se											
Part Color											
PPICOSEAD	Matrix:			Soil							
PRINCESCO) opts	GC Semi-volatiles (NJDEP EPH)										
PRINCESCOILO	EPH (C9-C28)	mg/kg	-	22.6	ND (4.6)	65.9	1800	-	130	371	-
Seal Empt (CO-SCO) mysg Co 99.3 MO (40) 118 2880 Co 385 888 Co CO-SCO CO-SCO CO CO CO CO CO CO CO	EPH (>C28-C40)		-	36.7	ND (4.6)	52.3	484	-	233	455	-
130-12 Anomate mg/lg 1	Total EPH (C9-C40)		-					-			-
12-12-16-07-08-08-08-08-08-08-08-08-08-08-08-08-08-	C10-C12 Aromatics		-					42.8			-
18-021 Anomales	C12-C16 Aromatics		-	-	-	-	-	104	-	-	-
22-1028 Annatisks mg/kg 	C16-C21 Aromatics		-	-	-	-	-		-	-	-
Seal Anomation mg/ag	C21-C36 Aromatics		_		-	-	-		-	-	_
Second Color	Total Aromatics									_	
12-12-12-12-12-12-12-12-12-12-12-12-12-1	C9-C12 Aliphatics		-				-		-	_	_
18-021 Algahates											
22-C4-04 Alphales										-	
ordel Allyphinders only 1 -						_	_			_	_
Color Colo											
Control Cont			-								
Second 1016 mg/kg		Ilig/kg	-	-	-	-	-	1680	-	-	-
Month Mont					<u> </u>	1	1		1	1	1
Mode 1222	Aroclor 1016	mg/kg	1	-	-	-	-	ND (0.011)	-	-	ND (0.012)
No control No	Aroclor 1221	mg/kg	1	-	-	-	-	ND (0.021)	-	-	ND (0.022)
None	Aroclor 1232	mg/kg	1	-	-	-	-	ND (0.012)	-	-	ND (0.013)
None of 1284 mg/kg 1	Aroclor 1242	mg/kg	1	-	-	-	-	ND (0.016)	-	-	ND (0.017)
None	Aroclor 1248	mg/kg	1	-	-	-	-	ND (0.011)	-	-	ND (0.012)
No control 200 mg/kg 1	Aroclor 1254	mg/kg	1	-	-	-	-	0.153	-	-	ND (0.017)
Note	Aroclor 1260		1	-	-	-	-	0.0506	-	-	ND (0.016)
No No No No No No No No	Aroclor 1268	mg/kg	1	-	-	-	-	ND (0.011)	-	-	ND (0.012)
Auminum mgkg NA 3960 4430 Auminum mgkg NA 3960 4430 Auminum mgkg Ng 450	Aroclor 1262	mg/kg	1	-	-	-	-	ND (0.010)	-	-	ND (0.011)
Assertice mg/kg 450	Metals Analysis										
Assertice mg/kg 450	Aluminum	ma/ka	NΔ	_	_	_	_	3960	_	_	4430
Name											
Servitum mg/kg 59000 - - - - - - - - -											
Sery Illum	Barium						-			-	
Cadmium mg/kg 78							-			-	
Acticum mg/kg											
Chromium mg/kg 14.77 13 Chromium mg/kg 14.77 13 Chromium Hexavalent mg/kg											
Chromium, Hexavalent mg/kg -											
Cobail											
Copper											
ron mg/kg 19100 12900 read mg/kg 800 27.8 4.2 10.8 31.9 39.3 160 13 14.2 read mg/kg 12900 read mg/kg											
Bead mg/kg 800 27.8 4.2 10.8 31.9 39.3 160 13 14.2											
Agnesium mg/kg 961 1250 Alanganese mg/kg 5900 68.5 84.1 Alercury mg/kg 65 68.5 84.1 Alickel mg/kg 23000											
Anganese mg/kg 5900 - - - - 68.5 - - 84.1							31.9				
Mercury mg/kg 65							-				
Selective mg/kg 23000 - - - - 8.4 - - 7.8											
Actassium mg/kg											
Selenium mg/kg 5700 - - - - - - - - -											
Silver mg/kg 5700 - - - - <0.54 - - <0.59											
Godium mg/kg - - - - <1100											
Bulfur mg/kg -	Silver		5700		-		-		-	-	
Thallium mg/kg 79	Sodium		-								
Anadium mg/kg 1100 29 23.3 dinc mg/kg 110000 52.6 40.9 deneral Chemistry			-								
inc mg/kg 110000 52.6 40.9 Seneral Chemistry	Thallium			-	-	-	-		-	-	
General Chemistry	Vanadium				-		-		-		
	Zinc	mg/kg	110000	-	-	-	-	52.6	-	-	40.9
iolids, Percent % - 91.7 88 90.5 92.7 - 76.8 88 -	General Chemistry										
200 200 200 200 200 200 200 200 200 200	Solids, Percent	%	-	91.7	88	90.5	92.7	-	76.8	88	_
				-			-				

All results in mg/kg unless otherwise noted.	mg/kg
Estimated Value	J
Not Sampled	NS
Not Detected	ND
Not Analyzed	NA
Method Detection Limit	()
Compound Found in Blank	В
Health based standard defaults to soil saturation limit	**
Exceeds NJDEP Non-Residential Soil Remediation Standard Result is from 2nd run	a b

Client Sample ID:		NJ Non-	SRU-SS-1	SRU-SS-1	SRU-SS-2	SRU-SS-3	SRU-SS-3A
Lab Sample ID:		Residential	JB99248-1	JB99248-1R	JB99097-8	JB99097-6	JB99097-9
Date Sampled:		Direct Contact	7/15/2015	7/15/2015	7/14/2015	7/14/2015	7/14/2015
Sample Depth:		Soil	0.5-1.0	0.5-1.0	1.0-1.5	1.0-1.5	6.5-7.0
Matrix:			Soil	Soil	Soil	Soil	Soil
GC/MS Volatiles (SW846 8260C)						
Acetone	mg/kg	NA	0.0293	-	0.0727	0.0679	0.136
Benzene	mg/kg	5	ND (0.00013)		ND (0.00015)	ND (0.00015)	ND (0.00011)
Bromochloromethane	mg/kg	-	ND (0.00031)		ND (0.00035)	ND (0.00035)	ND (0.00026)
Bromodichloromethane	mg/kg	3	ND (0.00016)	-	ND (0.00018)	ND (0.00018)	ND (0.00013)
Bromoform	mg/kg	280	ND (0.00024)	-	ND (0.00027)	ND (0.00027)	ND (0.00020)
Bromomethane	mg/kg	59	ND (0.00037)	-	ND (0.00041)	ND (0.00041)	ND (0.00031)
2-Butanone (MEK)	mg/kg	44000	0.0054 J	-	0.0136	0.0147	0.012
Carbon disulfide	mg/kg	110000	0.00085 J	-	0.00080 J	0.0036	ND (0.00019)
Carbon tetrachloride	mg/kg	2	ND (0.00023)	-	ND (0.00026)	ND (0.00026)	ND (0.00020)
Chlorobenzene	mg/kg	7400	ND (0.00016)	-	ND (0.00017)	ND (0.00018)	ND (0.00013)
Chloroethane	mg/kg	1100	ND (0.00048)	-	ND (0.00054)	ND (0.00054)	ND (0.00041)
Chloroform	mg/kg	2	ND (0.00015)	-	ND (0.00017)	ND (0.00017)	ND (0.00013)
Chloromethane	mg/kg	12	ND (0.00026)	-	ND (0.00030)	ND (0.00030)	ND (0.00022)
Cyclohexane	mg/kg	-	ND (0.00032)	-	ND (0.00036)	ND (0.00036)	ND (0.00027)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00055)	-	ND (0.00061)	ND (0.00062)	ND (0.00046)
Dibromochloromethane	mg/kg	8	ND (0.00021)	-	ND (0.00023)	ND (0.00023)	ND (0.00017)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00013)	-	ND (0.00015)	ND (0.00015)	ND (0.00011)
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00012)	-	ND (0.00014)	ND (0.00014)	ND (0.00010)
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00016)	-	ND (0.00018)	ND (0.00018)	ND (0.00013)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00023)	-	ND (0.00025)	ND (0.00025)	ND (0.00019)
Dichlorodifluoromethane	mg/kg	230000	ND (0.00036)	-	ND (0.00041)	ND (0.00041)	ND (0.00031)
1,1-Dichloroethane	mg/kg	24	ND (0.00014)	-	ND (0.00016)	ND (0.00016)	ND (0.00012)
1,2-Dichloroethane	mg/kg	3	ND (0.00014)	-	ND (0.00015)	ND (0.00015)	ND (0.00011)
1,1-Dichloroethene	mg/kg	150	ND (0.00060)	-	ND (0.00067)	ND (0.00067)	ND (0.00050)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00079)	-	ND (0.00088)	ND (0.00088)	ND (0.00066)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00060)	-	ND (0.00067)	ND (0.00067)	ND (0.00051)
1,2-Dichloropropane	mg/kg	5	ND (0.00024)	-	ND (0.00027)	ND (0.00027)	ND (0.00020)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	-	ND (0.00013)	ND (0.00013)	ND (0.00010)
trans-1,3-Dichloropropene	mg/kg	110000	ND (0.00018)	-	ND (0.00020)	ND (0.00020)	ND (0.00015)
Ethylbenzene	mg/kg		ND (0.00016)	•	ND (0.00018)	ND (0.00018)	ND (0.00014)
Freon 113	mg/kg	-	ND (0.00045) ND (0.0014)	-	ND (0.00051) ND (0.0015)	ND (0.00051) ND (0.0015)	ND (0.00038) ND (0.0011)
2-Hexanone	mg/kg	-		-			. ,
sopropylbenzene	mg/kg	- NA	ND (0.00011) ND (0.00087)		ND (0.00012) ND (0.00097)	ND (0.00012) ND (0.00097)	ND (0.00090) ND (0.00073)
Methyl Acetate	mg/kg	NA	ND (0.00087) ND (0.00023)		ND (0.00097) ND (0.00026)	ND (0.00097)	ND (0.00073) ND (0.00019)
Methylcyclohexane	mg/kg	320	ND (0.00023) ND (0.00015)		ND (0.00026) ND (0.00017)	ND (0.00026) ND (0.00017)	ND (0.00019) ND (0.00013)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00015)		ND (0.00017)	ND (0.00017)	ND (0.00013)
4-Methyl-2-pentanone(MIBK)	mg/kg mg/kg	97	ND (0.00046)		ND (0.00032)	ND (0.00032)	ND (0.00039)
Methylene chloride		260	ND (0.00099)		ND (0.0011)	ND (0.0011)	ND (0.00084)
Styrene 1,1,2,2-Tetrachloroethane	mg/kg mg/kg	3	ND (0.00018)		ND (0.00020)	ND (0.00020)	ND (0.00015)
Tetrachloroethene	mg/kg	5	ND (0.00010)		ND (0.00020)	ND (0.00020)	ND (0.00013)
Toluene	mg/kg	91000	0.0047		ND (0.00034)	0.00024 J	0.00026)
1,2,3-Trichlorobenzene	mg/kg	31000	0.0047 ND (0.00018)		ND (0.00023)	ND (0.00020)	ND (0.00015)
1,2,3-Trichloropenzene	mg/kg	820	ND (0.00018) ND (0.00017)		ND (0.00020) ND (0.00019)	ND (0.00020)	ND (0.00015)
1,2,4-1 richloropenzene 1,1,1-Trichloroethane	mg/kg	4200	ND (0.00017)		ND (0.00019)	ND (0.00019)	ND (0.00014)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00015)		ND (0.00017)	ND (0.00017)	ND (0.00013)
Frichloroethene	mg/kg	20	ND (0.00015)		ND (0.00017)	ND (0.00017)	ND (0.00013)
Frichlorofluoromethane	mg/kg	340000	ND (0.00015)		ND (0.00017)	ND (0.00017)	ND (0.00013)
/inyl chloride	mg/kg	2	ND (0.00020)		ND (0.00020)	ND (0.00020)	ND (0.00021)
n,p-Xylene	mg/kg	170000	ND (0.00020)		ND (0.00022)	ND (0.00022)	ND (0.00017)
n,p-xylene p-Xylene	mg/kg	170000	ND (0.00033)		ND (0.00040)	ND (0.00040)	ND (0.00030)
Cylene (total)	mg/kg	170000	ND (0.00028)		ND (0.00031)	ND (0.00031)	ND (0.00023)
GC/MS Volatile TIC	i-iig/ivg	17000	140 (0.00020)		145 (0.00001)	145 (0.00001)	145 (0.00023)
	I/I				1 0	1 0	0.0040 /
Total TIC, Volatile	mg/kg	-	0	-	0	0	0.0212 J
Total Alkanes	mg/kg	-	0	-	0	0	0

Client Sample ID:		NJ Non-	SRU-SS-1	SRU-SS-1	SRU-SS-2	SRU-SS-3	SRU-SS-3A
Lab Sample ID:		Residential	JB99248-1	JB99248-1R	JB99097-8	JB99097-6	JB99097-9
Date Sampled:		Direct Contact	7/15/2015	7/15/2015	7/14/2015	7/14/2015	7/14/2015
Sample Depth:		Soil	0.5-1.0	0.5-1.0	1.0-1.5	1.0-1.5	6.5-7.0
Matrix:			Soil	Soil	Soil	Soil	Soil
GC/MS Semi-volatiles (SW846	8270D)						
2-Chlorophenol	mg/kg	2200	ND (0.064)	_	ND (0.073)	ND (0.074)	ND (0.075)
4-Chloro-3-methyl phenol	mg/kg	-	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
2,4-Dichlorophenol	mg/kg	2100 14000	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
2,4-Dimethylphenol 2,4-Dinitrophenol	mg/kg mg/kg	1400	ND (0.16) ND (0.16)	-	ND (0.18) ND (0.18)	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)
4,6-Dinitro-o-cresol	mg/kg	68	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
2-Methylphenol 3&4-Methylphenol	mg/kg mg/kg	3400	ND (0.064) ND (0.064)	-	ND (0.073) ND (0.073)	ND (0.074) ND (0.074)	ND (0.075) ND (0.075)
2-Nitrophenol	mg/kg	-	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.073)
4-Nitrophenol	mg/kg	-	ND (0.32)	-	ND (0.36)	ND (0.37)	ND (0.38)
Pentachlorophenol Phenol	mg/kg mg/kg	10 210000	ND (0.16) ND (0.064)	-	ND (0.18) ND (0.073)	ND (0.19) ND (0.074)	ND (0.19) ND (0.075)
2,3,4,6-Tetrachlorophenol	mg/kg	-	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.070)
2,4,5-Trichlorophenol	mg/kg	68000	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
2,4,6-Trichlorophenol Acenaphthene	mg/kg mg/kg	74 37000	ND (0.16) 1.54	-	ND (0.18) 0.0192 J	ND (0.19) ND (0.037)	ND (0.19) ND (0.038)
Acenaphthylene	mg/kg	300000	0.0157 J	-	ND (0.036)	ND (0.037)	ND (0.038)
Acetophenone	mg/kg	5	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
Anthracene Atrazine	mg/kg mg/kg	30000 2400	5.3 ND (0.064)	-	0.0356 J ND (0.073)	0.0318 J ND (0.074)	ND (0.038) ND (0.075)
Benzo(a)anthracene	mg/kg	2	6.91	-	0.0847	0.0675	ND (0.073)
Benzo(a)pyrene	mg/kg	0.2	3.43	-	0.0812	0.0766	ND (0.038)
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	4.54 1.6	-	0.111 0.0535	0.0828 0.0542	ND (0.038) ND (0.038)
Benzo(k)fluoranthene	mg/kg	23	1.64	-	0.0335 0.0345 J	0.0342 0.0361 J	ND (0.038)
4-Bromophenyl phenyl ether	mg/kg	-	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
Butyl benzyl phthalate 1,1'-Biphenyl	mg/kg mg/kg	14000 34000	ND (0.064) 0.0136 J	-	ND (0.073) ND (0.073)	ND (0.074) ND (0.074)	ND (0.075) ND (0.075)
Benzaldehyde	mg/kg	68000	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
2-Chloronaphthalene	mg/kg	-	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
4-Chloroaniline Carbazole	mg/kg mg/kg	96	ND (0.16) 0.392	-	ND (0.18) ND (0.073)	ND (0.19) ND (0.074)	ND (0.19) ND (0.075)
Caprolactam	mg/kg	340000	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
Chrysene	mg/kg	230	7.24	-	0.0947	0.0758	ND (0.038)
bis(2-Chloroethoxy)methane bis(2-Chloroethyl)ether	mg/kg mg/kg	2	ND (0.064) ND (0.064)	-	ND (0.073) ND (0.073)	ND (0.074) ND (0.074)	ND (0.075) ND (0.075)
bis(2-Chloroisopropyl)ether	mg/kg	67	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
4-Chlorophenyl phenyl ether	mg/kg	-	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
2,4-Dinitrotoluene 2,6-Dinitrotoluene	mg/kg mg/kg	3	ND (0.032) ND (0.032)	-	ND (0.036) ND (0.036)	ND (0.037) ND (0.037)	ND (0.038) ND (0.038)
3,3'-Dichlorobenzidine	mg/kg	4	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
1,4-Dioxane	mg/kg	0.2	ND (0.032)	-	ND (0.036)	ND (0.037)	ND (0.038)
Dibenzo(a,h)anthracene Dibenzofuran	mg/kg mg/kg	-	0.579 0.841	-	0.0195 J ND (0.073)	ND (0.037) ND (0.074)	ND (0.038) ND (0.075)
Di-n-butyl phthalate	mg/kg	68000	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
Di-n-octyl phthalate	mg/kg	27000	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
Diethyl phthalate Dimethyl phthalate	mg/kg mg/kg	550000	ND (0.064) ND (0.064)	-	ND (0.073) ND (0.073)	ND (0.074) ND (0.074)	ND (0.075) ND (0.075)
bis(2-Ethylhexyl)phthalate	mg/kg	140	0.0388 J	-	ND (0.073)	ND (0.074)	ND (0.075)
Fluoranthene	mg/kg	24000 24000	20.3	-	0.193	0.159 ND (0.037)	ND (0.038)
Fluorene Hexachlorobenzene	mg/kg mg/kg	1	1.08 ND (0.064)	-	0.0317 J ND (0.073)	ND (0.037) ND (0.074)	ND (0.038) ND (0.075)
Hexachlorobutadiene	mg/kg	25	ND (0.032)	-	ND (0.036)	ND (0.037)	ND (0.038)
Hexachlorocyclopentadiene Hexachloroethane	mg/kg	110 140	ND (0.32)	-	ND (0.36)	ND (0.37)	ND (0.38)
Indeno(1,2,3-cd)pyrene	mg/kg mg/kg	2	ND (0.16) 2.01	-	ND (0.18) 0.0718	ND (0.19) 0.0601	ND (0.19) ND (0.038)
Isophorone	mg/kg	2000	ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
2-Methylnaphthalene	mg/kg	2400	0.0468 J	-	ND (0.073)	ND (0.074)	ND (0.075)
2-Nitroaniline 3-Nitroaniline	mg/kg mg/kg	23000	ND (0.16) ND (0.16)	-	ND (0.18) ND (0.18)	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)
4-Nitroaniline	mg/kg	-	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
Naphthalene Nitrobenzene	mg/kg mg/kg	17 340	0.067 ND (0.064)	-	ND (0.036) ND (0.073)	ND (0.037) ND (0.074)	ND (0.038) ND (0.075)
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND (0.064) ND (0.064)	-	ND (0.073)	ND (0.074)	ND (0.075)
N-Nitrosodiphenylamine	mg/kg	390	ND (0.16)	-	ND (0.18)	ND (0.19)	ND (0.19)
Phenanthrene Pyrene	mg/kg	300000 18000	5.59 14.5	-	0.17 0.173	0.105	ND (0.038) ND (0.038)
1,2,4,5-Tetrachlorobenzene	mg/kg mg/kg	-	ND (0.16)	-	ND (0.18)	0.151 ND (0.19)	ND (0.038) ND (0.19)
GC/MS Semi-volatile TIC	, , ,		\$ · ·/		V - 1	V - 27	
Total TIC, Semi-Volatile	mg/kg		15.8 J	-	2.59 J	1.17 J	0
Total Alkanes	mg/kg	-	1.37 J	-	0.19 J	0	0
GC Semi-volatiles (NJDEP EP	PH)						
EPH (C9-C28)	mg/kg	-	-	237	-	-	-
	mg/kg	-	-	556	-	-	-
EPH (>C28-C40)		-	-	792	-	-	-
EPH (>C28-C40) Total EPH (C9-C40)	mg/kg	_					
Total EPH (C9-C40)	mg/kg						
Total EPH (C9-C40) Metals Analysis	mg/kg	-	913	-	393	1230	643
Total EPH (C9-C40) Metals Analysis Sulfur		-	913	-	393	1230	643
Total EPH (C9-C40) Metals Analysis Sulfur General Chemistry		-	913	-	393	1230	643
Total EPH (C9-C40) Metals Analysis Sulfur	mg/kg	·		-			

All results in mg/kg unless otherwise noted.	milligrams per kilogram	mg/kg
	Estimated Value	J
	Not Sampled	NS
Exceeds NJDEP Non-Residential Soil Remediation Standard	Not Detected	ND
	Not Analyzed	NA
	Method Detection Limit	()
	Compound Found in Blank	В
Health baser	d standard defaults to soil saturation limit	**
	Result is from 2nd run	a b

Client Sample ID:		NJ Non-	SGTL-SS-1 (5.5-6.0)	SGTL-SS-2 (0.5-1.0)	SGTL-SS-4 (3.5-4.0)	SGTL-SS-5 (3.5-4.0)
Lab Sample ID:		Residential	JB77673-1	JB77673-2	JB77673-3	JB77971-1
Date Sampled:		Direct Contact	9/25/2014	9/25/2014	9/25/2014	9/29/2014
Sample Depth:		Soil	(5.5-6.0)	(0.5-1.0)	(3.5-4.0)	(3.5-4.0)
Matrix:			Soil	Soil	Soil	Soil
Volatile Organic Compounds						
			ND (0.40)	ND (4.0)	0.0047	0.454
Acetone Benzene	mg/kg mg/kg	- 5	ND (0.16) 0.102	ND (1.2) 0.0917 J	0.0247 ND (0.00017)	0.154 ND (0.00022)
Bromochloromethane	mg/kg	-	ND (0.018)	ND (0.14)	ND (0.00017)	ND (0.00035)
Bromodichloromethane	mg/kg	3	ND (0.013)	ND (0.10)	ND (0.00020)	ND (0.00026)
Bromoform	mg/kg	280	ND (0.011)	ND (0.088)	ND (0.00017)	ND (0.00022)
Bromomethane	mg/kg	59	ND (0.019)	ND (0.14)	ND (0.00028)	ND (0.00037)
2-Butanone (MEK) Carbon disulfide	mg/kg	44,000	ND (0.12)	ND (0.93)	ND (0.0018)	0.0255
Carbon distillide Carbon tetrachloride	mg/kg mg/kg	110,000 2	ND (0.019) ND (0.0091)	ND (0.14) ND (0.070)	0.0011 J ND (0.00014)	0.0082 ND (0.00018)
Chlorobenzene	mg/kg	7,400	ND (0.0089)	ND (0.069)	ND (0.00014)	ND (0.00018)
Chloroethane	mg/kg	1,100	ND (0.018)	ND (0.14)	ND (0.00028)	ND (0.00036)
Chloroform	mg/kg	2	ND (0.0086)	ND (0.067)	ND (0.00013)	ND (0.00017)
Chloromethane	mg/kg	12	ND (0.019)	ND (0.15)	ND (0.00030)	ND (0.00038)
Cyclohexane	mg/kg	-	0.495	4.05	ND (0.00034)	ND (0.00045)
1,2-Dibromo-3-chloropropane Dibromochloromethane	mg/kg mg/kg	0.2 8	ND (0.025) ND (0.011)	ND (0.19) ND (0.087)	ND (0.00038) ND (0.00017)	ND (0.00049) ND (0.00022)
1,2-Dibromoethane	mg/kg	0.04	ND (0.011) ND (0.012)	ND (0.090)	ND (0.00017)	ND (0.00022)
1,2-Dichlorobenzene	mg/kg	59,000	ND (0.012)	ND (0.094)	ND (0.00018)	ND (0.00024)
1,3-Dichlorobenzene	mg/kg	59,000	ND (0.012)	ND (0.097)	ND (0.00019)	ND (0.00025)
1,4-Dichlorobenzene	mg/kg	13	ND (0.011)	ND (0.082)	ND (0.00016)	ND (0.00021)
Dichlorodifluoromethane	mg/kg	230,000	ND (0.033)	ND (0.26)	ND (0.00051)	ND (0.00066)
1,1-Dichloroethane	mg/kg	24	ND (0.012)	ND (0.092)	ND (0.00018) ND (0.00025)	ND (0.00023)
1,2-Dichloroethane 1,1-Dichloroethene	mg/kg mg/kg	3 150	ND (0.016) ND (0.018)	ND (0.13) ND (0.14)	ND (0.00025) ND (0.00027)	ND (0.00032) ND (0.00035)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.017)	ND (0.14)	ND (0.00027)	ND (0.00033)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.012)	ND (0.094)	ND (0.00018)	ND (0.00024)
1,2-Dichloropropane	mg/kg	5	ND (0.011)	ND (0.085)	ND (0.00017)	ND (0.00022)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.0081)	ND (0.063)	ND (0.00012)	ND (0.00016)
trans-1,3-Dichloropropene	mg/kg	7	ND (0.011)	ND (0.084)	ND (0.00017)	ND (0.00021)
Ethylbenzene Freon 113	mg/kg mg/kg	110,000	7.45 ND (0.035)	23 ND (0.27)	ND (0.00019) ND (0.00053)	ND (0.00024) ND (0.00068)
2-Hexanone	mg/kg	-	ND (0.033)	ND (0.27) ND (0.79)	ND (0.00033)	ND (0.0008)
Isopropylbenzene	mg/kg	-	2.42	18.4	ND (0.00018)	ND (0.0023)
Methyl Acetate	mg/kg	-	ND (0.070)	ND (0.55)	ND (0.0011)	ND (0.0014)
Methylcyclohexane	mg/kg	-	2.73	22.5	ND (0.00021)	ND (0.00027)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.011)	ND (0.082)	ND (0.00016)	0.00035 J
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.034)	ND (0.27)	ND (0.00052)	ND (0.00067)
Methylene chloride Styrene	mg/kg mg/kg	97 260	ND (0.095) ND (0.011)	ND (0.74) ND (0.089)	ND (0.0015) ND (0.00018)	0.0025 J ND (0.00023)
Tert Butyl Alcohol	mg/kg	11,000	ND (0.011)	ND (0.009)	ND (0.0027)	ND (0.0034)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.014)	ND (0.11)	ND (0.00021)	ND (0.00027)
Tetrachloroethene	mg/kg	5	ND (0.011)	ND (0.087)	ND (0.00017)	ND (0.00022)
Toluene	mg/kg	91,000	0.0668	0.115 J	ND (0.00023)	ND (0.00029)
1,2,3-Trichlorobenzene	mg/kg	- 920	ND (0.013)	ND (0.10)	ND (0.00020)	ND (0.00026)
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	mg/kg	820 4,200	ND (0.011) ND (0.0089)	ND (0.089) ND (0.069)	ND (0.00018) ND (0.00014)	ND (0.00023) ND (0.00018)
1,1,2-Trichloroethane	mg/kg mg/kg	6	ND (0.0069)	ND (0.069)	ND (0.00014)	ND (0.00018)
Trichloroethene	mg/kg	20	ND (0.013)	ND (0.099)	ND (0.00022)	ND (0.00025)
Trichlorofluoromethane	mg/kg	340,000	ND (0.011)	ND (0.085)	ND (0.00017)	ND (0.00022)
Vinyl chloride	mg/kg	2	ND (0.024)	ND (0.18)	ND (0.00036)	ND (0.00047)
m,p-Xylene	mg/kg	170,000	15.3	9.57	ND (0.00040)	ND (0.00052)
o-Xylene	mg/kg	170,000	0.285	ND (0.11)	ND (0.00021)	ND (0.00027)
Xylene (total)	mg/kg	170,000	15.5	9.57	ND (0.00021)	ND (0.00027)
Volatile Organic Tentatively Id	entified	Compounds				
Total TIC, Volatile	mg/kg	-	32 J (7)	207 J (6)	0	0.074 J (7)
Total Alkanes	mg/kg	-	51.5 J	503 J	0	0.0606 J
Metal Compounds						
Lead	mg/kg	800	11.6	28.8	11.4	-
General Chemistry						
Solids, Percent	%	-	89.7	87.7	85.3	72.1
All results in ma/ka unless other	•			•	grams per kilogram	

All results in mg/kg unless otherwise noted.	ligrams per kilogram	mg/kg
	Estimated Value	J
	Not Sampled	NS
Exceeds NJDEP Non-Residential Soil Remediation Standard	Not Detected	ND
	Not Analyzed	NA
Me	ethod Detection Limit	()
Comp	ound Found in Blank	В
Health based standard defaults to	to soil saturation limit	**
R	esult is from 2nd run	a b

Client Sample ID: Lab Sample ID: Date Sampled: Sample Double		NJ Non- Residential Direct Contact Soil	API-SS-9 JB99428-5 7/17/2015 1.0-1.5 ft	API-SS-9 JB99428-5R 7/17/2015 1.0-1.5 ft
Sample Depth: Matrix:		-	1.0-1.5 ft Soil	1.0-1.5 ft Soil
GC/MS Volatiles (SW846 8260	C)	•		
Acetone	mg/kg	NA .	0.0241	-
Benzene Bromochloromethane	mg/kg mg/kg	5	ND (0.00013) ND (0.00031)	
Bromodichloromethane	mg/kg	3	ND (0.00015)	-
Bromoform Bromomethane	mg/kg mg/kg	280 59	ND (0.00023) ND (0.00036)	
2-Butanone (MEK)	mg/kg	44000	ND (0.0019)	-
Carbon disulfide Carbon tetrachloride	mg/kg mg/kg	110000	0.00056 J ND (0.00023)	-
Chlorobenzene	mg/kg	7400	ND (0.00015)	
Chloroethane Chloroform	mg/kg mg/kg	1100	ND (0.00048) ND (0.00015)	
Chloromethane	mg/kg	12	ND (0.00026)	
Cyclohexane 1,2-Dibromo-3-chloropropane	mg/kg mg/kg	0.2	ND (0.00031) ND (0.00054)	
Dibromochloromethane	mg/kg	8	ND (0.00020)	-
1,2-Dibromoethane 1,2-Dichlorobenzene	mg/kg mg/kg	0.04 59000	ND (0.00013) ND (0.00012)	
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00016)	-
1,4-Dichlorobenzene Dichlorodifluoromethane	mg/kg mg/kg	13 230000	ND (0.00022) ND (0.00036)	
1,1-Dichloroethane	mg/kg	24	ND (0.00014)	-
1,2-Dichloroethane 1,1-Dichloroethene	mg/kg mg/kg	3 150	ND (0.00013) ND (0.00059)	
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00077)	-
trans-1,2-Dichloroethene 1,2-Dichloropropane	mg/kg mg/kg	720 5	ND (0.00059) ND (0.00024)	
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	-
trans-1,3-Dichloropropene Ethylbenzene	mg/kg mg/kg	7 110000	ND (0.00018) ND (0.00016)	
Freon 113	mg/kg	-	ND (0.00044)	-
2-Hexanone Isopropylbenzene	mg/kg mg/kg	-	ND (0.0013) ND (0.00011)	-
Methyl Acetate	mg/kg	NA	ND (0.00085)	-
Methylcyclohexane Methyl Tert Butyl Ether	mg/kg mg/kg	320	ND (0.00023) ND (0.00015)	-
4-Methyl-2-pentanone(MIBK)	mg/kg		ND (0.00046)	-
Methylene chloride Styrene	mg/kg mg/kg	97 260	ND (0.00097) ND (0.00018)	-
Tert Butyl Alcohol	mg/kg	11000	ND (0.0026)	-
1,1,2,2-Tetrachloroethane Tetrachloroethene	mg/kg mg/kg	3 5	ND (0.00017) ND (0.00030)	
Toluene	mg/kg	91000	0.0024	-
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	mg/kg mg/kg	820	ND (0.00017) ND (0.00017)	
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00015)	
1,1,2-Trichloroethane Trichloroethene	mg/kg mg/kg	6 20	ND (0.00015) ND (0.00015)	
Trichlorofluoromethane	mg/kg	340000	ND (0.00025)	
Vinyl chloride m.p-Xylene	mg/kg mg/kg	170000	ND (0.00020) ND (0.00035)	
o-Xylene	mg/kg	170000	ND (0.00027)	
Xylene (total)	mg/kg	170000	ND (0.00027)	-
GC/MS Volatile TIC	mg/kg		ND (0.00027)	:
GC/MS Volatile TIC Total TIC, Volatile Total TIC, Volatile	mg/kg mg/kg mg/kg			-
GC/MS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total Alkanes	mg/kg mg/kg mg/kg mg/kg	170000 - - -	0 -	
GC/MS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes	mg/kg mg/kg mg/kg mg/kg mg/kg	170000	0 -	-
GC/MS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes GC/MS Semi-volatiles (SW846)	mg/kg mg/kg mg/kg mg/kg mg/kg	170000 - - -	0 0	
GC/MS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes GC/MS Semi-volatiles (SW846 2-Chlorophenol 4-Chloro-3-methyl phenol	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	- - - -	0 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0	-
GC/MS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes Total Alkanes GC/MS Semi-volatiles (SW846 2-Chibrosphenol 4-Chicho-S-nesthyl phenol 2-4-Dinterphenol 2-4-Dinterphenol 2-4-Dinterphenol	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	170000	ND (0.0027) 0 - 0 ND (0.341) ND (0.85) ND (0.85) ND (0.85)	
GC/MS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes GC/MS Semi-volatiles (SW346 2-Chlorophenol 4-Chloro-3-methyl phenol 2-4-Dichlorophenol 4-4-Dintripphenol 4-4-Dintripphenol 6-6-Dintri	mg/kg	2200 2200 14000 14000 68	ND (0.0027) 0 0 0 ND (0.341 ND (0.85) ND (0.85) ND (0.85) ND (0.85) ND (0.85) ND (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes Total Alkanes GCMS Semi-volatile s (SW646 2-Chiorophenol 1-Chiroro-S-methyl phenol 1-Chiroro-S-methyl phenol 2-Chirorophenol 2-Chirorophenol 2-Chirophenol 2-Chirorophenol 2-Chirophenol 2-Chirophenol 2-Chirophenol 2-Chirophenol 2-Chirophenol 2-Rethylphenol	mg/kg	170000	ND (0.00027) 0	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes Total Alkanes GCMS Semi-volatiles (6WM66 2-Chiorophenol 2-Chiorophenol 2-4-Chiorophenol 3-4-Chiorophenol 3-4-Chiorophenol 3-4-Chiorophenol 3-4-Chiorophenol 3-4-Chiorophenol 3-4-Chiorophenol 3-4-Chiorophenol 3-4-Chiorophenol 3-6-Chiorophenol 3-6-Chiorophenol 3-6-Chiorophenol 3-6-Chiorophenol 3-6-Chiorophenol 3-6-Chiorophenol 3-6-Chiorophenol 3-6-Chiorophenol	mg/kg	2200 	ND (0.00027) 0 0 ND (0.341 ND (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Alianes Total Alianes Total Alianes GCMS Semi-volatile (6W646 2. Chiorophenol 2. Chiorophenol 2. 4-Dichtorophenol 2. 4-Dichtorophenol 3. 4-Michiphenol 3. 4	mg/kg	2200 2200 14000 14000 68	ND (0.00027) 0	
GCIMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes Total Alkanes GCMS Semi-volatile (SW846 2-Chirorophenol 2-Chirorophenol 2-4-Dictitrophenol 2-4-Dictitrophenol 2-4-Dictitrophenol 3-4-Dictitrophenol 3-4-Dictitrophenol 3-4-Dictitrophenol 3-4-Dictitrophenol 3-4-Dictitrophenol 3-4-Microphenol 3-4-Microphenol 3-4-Microphenol 3-4-Microphenol 3-4-Microphenol 3-4-Sirvitrophenol 3-3-4-Sirvitrophenol	mg/kg	2200 2100 14000 680 210000 	ND (0.00027) 0 0 ND (0.341) ND (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes Total Alkanes Total Alkanes GCMS Semi-volatile (SW846 2-Chitroshane) 3-Chitroshane) 3	mg/kg	170000	ND (0.00027) 0 0 0 ND (0.34) ND (0.85)	
SCMS Volatile TIC TONI TIC, Volatile TONI TIC, Volatile TONI TIC, Volatile TONI TIC, Volatile TONI ANAMER TONI ANAMER SEMI-VOLATILE (EWINE SCHINGTONI ANAMER SCHINGTONI ANAMER SCHINGTONI ANAMER SCHINGTONI ANAMER SCHINGTONI SCHINGTON	mg/kg	170000	ND (0.30027) 0 0 0 ND (0.34) ND (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Mixmes Total Mixmes Total Alkanes GCMS Semi-volatile s (SWR46 2-Chlorophenol 2-Chlorophenol 2-4-Chotro ophenol 3-4-Chotro ophenol 3-4-Chot	mg/kg	170000	ND (0.00027) 0 0 0 ND (0.34) ND (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total Aliannes GCMS Semi-volatile (SW646 SC Chinoro-methyl phenol 2.4 Chinoro-methyl phenol 2.4 Chinoro-methyl phenol 2.4 Chinoro-methyl phenol 3.4 Aberthylphenol 3.4 Semi-volatile Semi-volatile 3.4 Semi-volatile 3. Semi-volatile 3.4 Semi-volatile 3.4 Semi-volatile 3.4 Semi-volat	mg/kg	170000	NO (0.00027) 0 0 0 0 0 0 0 0 0 0 0 0 0	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Alianes Total Alianes Total Alianes Total Alianes GCMS Semi-volatile (6W846 EC Titoro-Smethy pithenol 2-4-Dictorophenol 2-4-Dictorophenol 2-4-Dictorophenol 2-4-Dictorophenol 2-4-Dictorophenol 2-4-Dictorophenol 3-4-Dictorophenol 3-4-Dictorophenol 3-4-Dictorophenol 3-4-Methylanenol 3-4-Methylanenol 3-4-Methylanenol 3-4-Methylanenol 3-4-A-Tiridiscophenol 2-4-5-Tiridiscophenol 2-4-5-Tiridiscophenol 2-4-5-Tiridiscophenol 3-4-5-Tiridiscophenol 4-4-5-Tiridiscophenol 4-4-5-Tiridiscophenol 4-6-Tiridiscophenol 4-6-Tiridiscophenol 5-4-5-Tiridiscophenol 5-4-5-Tiridiscophenol 5-4-5-Tiridiscophenol 5-4-5-Tiridiscophenol 5-6-Tiridiscophenol 5-6-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5	mg/kg	170000	NO (0.00027) 0 0 0 1 NO (0.341 NO (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Alianes Total Alianes Total Alianes Sommivolatile (SW346 Semi-volatile (mg/kg mg/k	2200 2100 14000 14000 14000 14000 15000 10	ND (0.00027) 0 1 0 0 1 ND (0.34) ND (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Aliannes Total Aliannes Total Aliannes GCMS Semi-volatile (GW646 2. Chiorophenol 2. Chiorophenol 2. Chiorophenol 2. 4. Dichiorophenol 2. 4. Dichiorophenol 3. 3. 4. Dichiorophenol 3. 3. 4. Dichiorophenol 3. 3. 4. Dichiorophenol 3. 3. 4. Dichiorophenol 4. 3. Dichiorophenol 5. 3. Dichiorophenol 6. 4. Dichiorophenol 6. Dichior	mg/kg mg/k	2200 2100 2100 2100 2400 2100 21000 210000 210000 3400 210000 3700 30000 30000 200000 200000 200000 200000 200000	NO (0.00027) 0 1 0 0 1 NO (0.34) NO (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total Alkanes Total Alkanes GCMS Semi-volatiles (SWR46 2-Chiorophenol 2-Chiorophenol 2-A-Chiorophenol 2-A-Chiorophenol 2-A-Chiorophenol 3-A-Chiorophenol 3-A-Chi	mg/kg mg/k	2200 2100 14000 68 340 10 21000 24000 68 37000 37000 30000 24000 24000 22 2 2 2 2 2 2 2 2 2 2	NO (0.00027) 0 0 1 NO (0.34) NO (0.85)	
GCMS Volatile TIC TONI TIC, Volatile TONI Alkanes GCMS Semi-volatile s (SW846 2-Chistophenol 2-Chistophe	mg/kg mg/k	2200 2100 2100 2100 3400 210000 210000 3000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 3000	NO (0.00027) 0 1 0 0 1 NO (0.34) NO (0.85)	
GCIM S Volatile TIC Total TIC, Volatile Total TIC, Volatile Total TIC, Volatile Total Alkanes Total Alkanes Total Alkanes Sommis Volatile (SW846 Schmisvolatile (SW846 Schmisvol	mg/kg mg/k	2200 2100 2100 2100 2100 2100 2100 2100	ND (0.00027) 0 0 0 0 0 0 0 0 0 0 0 0 0	
SCMS Volatile TIC TONI TIC, Volatile TONI Alkanes SCMS Semi-volatile s (SWS66 SCMS66 SCMS6	mg/kg mg/k	2200 2100 14000 14000 14000 14000 15000 10	ND (0.30027)	
GCMS Volatile TIC Total TIC, Volatile Total Aliannes Total Aliannes GCMS Semi-volatile (SW846 SC (Thioro-Brenty) phenoi 4.4-Dicking-phenoi 4.4-Dicking-phenoi 4.4-Dicking-phenoi 6.4-Dicking-phenoi 6.4-Dicking-phenoi 6.4-Dicking-phenoi 6.4-Dicking-phenoi 6.4-Dicking-phenoi 6.4-Dicking-phenoi 6.4-Dicking-phenoi 6.4-Ticking-phenoi 6.4-Ticking-phenoi 6.3-6-Dicking-phenoi 6.4-Ticking-phenoi 6.6-Dicking-phenoi	mg/kg mg/k	2000 2100 2100 14000 14000 14000 210000 210000 210000 210000 210000 210000 210000 2100000 2100000000	NO (0.00027) 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0	
GCMS Volatile TIC Total TIC, Volatile Total Aliannes GCMS Semi-volatiles (SWR46 ECTisros-methy Inherol 2-4-Districtor-methy Inherol 2-4-Districtor-methy Inherol 2-4-Districtor-methy Inherol 2-4-Districtor-methy Inherol 2-4-Districtor-methy Inherol 3-4-Districtor-methy Inhe	mg/kg mg/k	2200 2100 14000 14000 14000 14000 15000 10	ND (0.30027)	
SCMS Volatile TIC TONI TIC, Volatile TONI Alkanes SCMS Semi-volatile s (SWS66 SCMS SEMI-volat	mg/kg mg/k	170000	ND (0.30027)	
GCMS Volatile TIC TONI TIC, Volatile TONI ANAMERS GCMS Semi-volatiles (SWS-64 CC Horsop-Inethyl Plancil CC Horsop-Inethyl Company CC Horsop-Inethyl CC Hors	mg/kg mg/k	2200	NO (0.00027) 0 1 0 0 1 NO (0.34) NO (0.85)	
GCMS Volatile TIC Total TIC, Volatile Total Alkanes GCMS Semi-volatiles (SWR46 2-Chiorophenol Le-Chiorophenol Le-Chiorophyligher Le-Chiorophyli	mg/kg mg/k	2200	NO (0.00027) 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0	
GCMS Volatile TIC Total TIC, Volatile Total Alkanes GCMS Semi-volatile (SW846 SC (Tistor-Smethy) phenol 24-District Semi-volatile (SW846 24-District Semi-volatile (mg/kg mg/k	170000	NO (0.00027) 0 0 0 0 0 0 0 0 0 0 0 0 0	
SCMS Volatile TIC TONI TIC, Volatile TONI ANAMERS SEMI-VOLATILE (CONTROL TIC, VOLATILE TONI ANAMERS SEMI-VOLATILE TONI SEMI-VOL	mg/kg mg/k	170000	ND (0.00027) 0 0 0 1 ND (0.34) ND (0.85) ND (0.84) ND (0.84) ND (0.84) ND (0.84) ND (0.85) ND (0.85) ND (0.84) ND (0.85) ND (0.84) ND (0.85) ND (0.85) ND (0.84) ND (0.85) ND (0.85) ND (0.84) ND (0.85) ND (0.85) ND (0.85) ND (0.85) ND (0.84) ND (0.85)	
GCMS Volatile TIC TONI TIC, Volatile TONI ANAMERS GCMS Semi-volatile (GWS-66 CCMS-copenie) CCMS-copenie CCMS-copen	mg/kg mg/k	2200 210 210 210 210 210 210 210 210 210	ND (0.30027) ND (0.00027) ND (0.34) ND (0.34) ND (0.85)	
GCMS Volatile TIC TONI TIC, Volatile TONI ANA TIC, Volatile TONI ANA TIC, Volatile TONI ANA TIC, Volatile TIC, Vola	mg/kg mg/k	2200 2-100 14000 34000 2-100 14000 34000 2-10000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 30000 300000 300000 300000 300000 3000000	NO (0.00027) NO (0.00027) NO (0.00027) NO (0.34) NO (0.35) NO (0.85) NO (0.8	
GCMS Volatile TIC Total TIC, Volatile Total Alkanes GCMS Semi-volatiles (SWR46 2-Chiorochemol 2-Chiorochemol 2-Chiorochemol 2-Chiorochemol 2-Chiorochemol 2-Chiorochemol 2-Chiorochemol 2-Chiorochemol 1-Chiorochemol 1-Chiorochemol 1-Chiorochemol 1-Chiorochemol 1-Chiorochemol 2-Chiorochemol 2-Chioroche	mg/kg mg/k	170000	NO (0.00027)	
GCMS Volatile TIC TONI TIC, Volatile TONI ANAmes SCHMS Semi-volatile (1998-66 CCMscopphanol CCM	mg/kg mg/k	170000	NO (0.00027) 0 1 0 0 1 NO (0.34) NO (0.85) NO (
GCMS Volatile TIC TONI TIC, Volatile TONI Alkanes GCMS Semi-volatile (GWS-66 CCMS-copenie) CCMS-copenie CCM	mg/kg mg/k	2200	NO (0.00027) 0 1 0 1 NO (0.34) NO (0.85)	
GCMS Volatile TIC TONI TIC, Volatile TONI ANAMERS GCMS Semi-volatile & GWR44 Z-Chiorophenol Z-C-Chiorophenol Z-Z-Chiorophenol Z-Chiorophenol Z-Chiorophenol Z-Chiorophenol Z-Chiorophenol Z-Chiorophenol Z-Z-Chiorophenol Z-Z-Z-Chiorophenol Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-Z-	mg/kg mg/k	2200	ND (0.30027)	
GCMS Volatile TIC TON TIC, Volatile TIC, V	mg/kg mg/k	170000	NO (0.00027) 0 0 1 0 0 0 1 1 1 1 1 1 1	
GCMS Volatile TIC TONI TIC, Volatile TONI ANAMERS GCMS Semi-volatile (SWS46 CCHisrop-Inethyl Phenol CCHisrop-Inethyl Phenol CCHIsrop-Inethyl Phenol CCHISTOPH TIC, Volatile TIC, CHISTOPH TIC, Volatile CCHISTOPH TIC, Volatile CCHIS	mg/kg mg/k	2200	ND (0.30027)	

Client Sample ID:		N.I Non-	API-SS-9	API-SS-9	
Lab Sample ID:		Residential	JB99428-5	JB99428-5R	
Date Sampled:		Direct Contact	7/17/2015	7/17/2015	
Sample Depth:		Soil	1.0-1.5 ft	1.0-1.5 ft	
Matrix:			Soil	Soil	
GC/MS Semi-volatile TIC					
Total TIC, Semi-Volatile	mg/kg		15.73 J	-	
Total Alkanes	mg/kg		-	_	
Total Alkanes	mg/kg		0	-	
Metals Analysis	_				
Aluminum	mg/kg	NA NA	8140		
Antimony	mg/kg	450	<2.1		
	mg/kg	19	6.8		
Arsenic Barium	mg/kg	59000	27.9		
Bervilium	mg/kg	140	0.44		
Beryllium Cadmium	mg/kg	78	<0.53	-	
Cadmium	mg/kg	/8	<0.53 2980		
Chromium			122		
Chromium, Hexavalent	mg/kg		122	14	
Cohalt	mg/kg mg/kg	590	6.7	1.4	
	mg/kg	45000	39.3	- :	
Copper	mg/kg	40000	23000	-	
lead	mg/kg	800	19.8		
Magnesium		000	2910		
Magnesium Manganese	mg/kg mg/kg	5900	2010		
Mercury	mg/kg	65	<0.032		
Nickel	mg/kg	23000	18.5		
Nickei Potassium	mg/kg	23000	<1100		
Potassium Selenium	mg/kg	5700	<1100	-	
Selenium		5700	<0.53		
Sodium	mg/kg	5/00	<1100		
	mg/kg		<1100		
Sulfur	mg/kg mg/kg	79	<1.1		
Thallium				-	
Vanadium Zinc	mg/kg mg/kg	1100 110000	87.8	-	
	iiig/kg	110000	134		
General Chemistry					
Nitrogen, Ammonia	mg/kg		<2.5	-	
Redox Potential Vs H2	mv		-	531	
Solids, Percent	%		95.1		
Sulfide, Neutral Extraction	mg/kg		<4.2		
pH	SU		8.43	8.57	

All results in mg/kg unless of	herwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC-48 – Gasoline Dispenser and AST

Client Sample ID:			EFP-SS-1	EFP-SS-1R
Lab Sample ID:		NJ Non- Residential	JB99093-14	JB99944-4
Date Sampled:		Direct Contact	7/13/2015	7/23/2015
Depth:		Soil	1.5-2.0 ft	1.5-2.0ft
Matrix:			Soil	Soil
GC/MS Volatiles (SW846 82600	;)			
Acetone	mg/kg	NA	0.0746	0.0373
Benzene	mg/kg	5	ND (0.00016)	0.0006
Bromochloromethane	mg/kg	-	ND (0.00037)	ND (0.00031)
Bromodichloromethane	mg/kg	3	ND (0.00019)	ND (0.00016)
Bromoform	mg/kg	280	ND (0.00028)	ND (0.00023)
Bromomethane	mg/kg	59	ND (0.00043)	ND (0.00036)
2-Butanone (MEK)	mg/kg	44000	0.0083 J	0.0072 J
Carbon disulfide	mg/kg	110000	0.00056 J	0.00049 J
Carbon tetrachloride	mg/kg	2	ND (0.00027)	ND (0.00023)
Chlorobenzene	mg/kg	7400	ND (0.00018)	ND (0.00015)
Chloroethane	mg/kg	1100	ND (0.00057)	ND (0.00048)
Chloroform	mg/kg	2	ND (0.00018)	ND (0.00015)
Chloromethane	mg/kg	12	ND (0.00031)	ND (0.00026)
Cyclohexane	mg/kg	-	ND (0.00038)	ND (0.00031)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00065)	ND (0.00054)
Dibromochloromethane	mg/kg	8	ND (0.00024)	ND (0.00020)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00016)	ND (0.00013)
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00015)	ND (0.00012)
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00019)	ND (0.00016)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00027)	ND (0.00022)
Dichlorodifluoromethane	mg/kg	230000	ND (0.00043)	ND (0.00036)
1,1-Dichloroethane	mg/kg	24	ND (0.00017)	ND (0.00014)
1,2-Dichloroethane	mg/kg	3	ND (0.00016)	ND (0.00013)
1,1-Dichloroethene	mg/kg	150	ND (0.00071)	ND (0.00059)
cis-1,2-Dichloroethene	mg/kg	560 720	ND (0.00093)	ND (0.00077) ND (0.00059)
trans-1,2-Dichloroethene	mg/kg	5	ND (0.00071) ND (0.00028)	ND (0.00039)
1,2-Dichloropropane	mg/kg mg/kg	7	ND (0.00028)	ND (0.00024)
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	mg/kg	7	ND (0.00014)	ND (0.00012)
Ethylbenzene	mg/kg	110000	ND (0.00021)	ND (0.00016)
Freon 113	mg/kg	-	ND (0.00053)	ND (0.00045)
2-Hexanone	mg/kg	-	ND (0.0016)	ND (0.0013)
Isopropylbenzene	mg/kg	-	ND (0.00013)	ND (0.00011)
Methyl Acetate	mg/kg	NA	ND (0.0010)	ND (0.00086)
Methylcyclohexane	mg/kg	-	ND (0.00027)	ND (0.00023)
Methyl Tert Butyl Ether	mg/kg	320	0.00034 J	0.00049 J
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00055)	ND (0.00046)
Methylene chloride	mg/kg	97	0.0018 J	ND (0.00098)
Styrene	mg/kg	260	ND (0.00021)	ND (0.00018)
Tert Butyl Alcohol	mg/kg	11000	ND (0.0032)	ND (0.0027)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00021)	ND (0.00017)
Tetrachloroethene	mg/kg	5	ND (0.00036)	ND (0.00030)
Toluene	mg/kg	91000	ND (0.00025)	0.0043
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00021)	ND (0.00018)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00020)	ND (0.00017)
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00018)	ND (0.00015)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00018)	ND (0.00015)
Trichloroethene	mg/kg	20	ND (0.00018)	ND (0.00015)
Trichlorofluoromethane	mg/kg	340000	ND (0.00030)	ND (0.00025)
Vinyl chloride	mg/kg	2	ND (0.00024)	ND (0.00020)
m,p-Xylene	mg/kg	170000	ND (0.00042)	ND (0.00035)
o-Xylene	mg/kg	170000	ND (0.00033)	ND (0.00027)
Xylene (total)	mg/kg	170000	ND (0.00033)	ND (0.00027)
GC/MS Volatile TIC				
	ma/ke		0	0
Total TIC, Volatile	mg/kg mg/kg	-	0	0
Total Alkanes	my/ky		U	l "
0				
General Chemistry				

All results in mg/kg unless of	otherwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Table 4-1
Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results at AOC 49 - Electrician Shop Diesel/No. 2 Fuel Oil ASTs

Client Sample ID:		NJ Non-	PSRR-SS-2	PSRR-SS-2
Lab Sample ID:		Residential	JB98641-7	JB98641-7R
Date Sampled:		Direct Contact Soil	7/7/2015	7/7/2015
Sample Depth:		3011	1.0-1.5 ft	1.0-1.5 ft
Matrix:			Soil	Soil
			COII	Con
GC/MS Volatiles (SW846 8260	IC)			
Acetone	mg/kg	NA	_	0.0389
Benzene	mg/kg	5		ND (0.00098)
Bromochloromethane	mg/kg	-	-	ND (0.0098)
Bromodichloromethane Bromoform	mg/kg mg/kg	3 280		ND (0.0039) ND (0.0098)
Bromomethane	mg/kg	59		ND (0.0098)
2-Butanone (MEK)	mg/kg	44000		ND (0.020)
Carbon disulfide	ma/ka	110000	-	0.00071 J
Carbon tetrachloride	mg/kg	2		ND (0.0039)
Chlorobenzene	mg/kg	7400		ND (0.0039)
Chloroethane Chloroform	mg/kg	1100	-	ND (0.0098)
Chloromethane	mg/kg mg/kg	12	_	ND (0.0039) ND (0.0098)
Cyclohexane	mg/kg	12		ND (0.0098)
1,2-Dibromo-3-chloropropane	mg/kg	0.2		ND (0.0039)
Dibromochloromethane	mg/kg	8	-	ND (0.0039)
1,2-Dibromoethane	mg/kg	0.04		ND (0.0020)
1,2-Dichlorobenzene	mg/kg	59000		ND (0.0020)
1,3-Dichlorobenzene	mg/kg	59000	-	ND (0.0020)
1,4-Dichlorobenzene Dichlorodifluoromethane	mg/kg mg/kg	13 230000		ND (0.0020) ND (0.0098)
1,1-Dichloroethane	mg/kg	230000		0.00057 J
1,2-Dichloroethane	mg/kg	3		ND (0.0020)
1,1-Dichloroethene	mg/kg	150	-	ND (0.0020)
cis-1,2-Dichloroethene	mg/kg	560		ND (0.0020)
trans-1,2-Dichloroethene	mg/kg	720		ND (0.0020)
1,2-Dichloropropane	mg/kg	5 7	-	ND (0.0039)
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	mg/kg mg/kg	7		ND (0.0039) ND (0.0039)
Ethylbenzene	mg/kg	110000		ND (0.0039)
Freon 113	mg/kg	110000	_	ND (0.0098)
2-Hexanone	mg/kg	-	-	ND (0.0098)
Isopropylbenzene	mg/kg	-		ND (0.0039)
Methyl Acetate	mg/kg	NA		ND (0.0098)
Methylcyclohexane Methyl Tert Butyl Ether	mg/kg mg/kg	320	-	0.00059 J ND (0.0020)
4-Methyl-2-pentanone(MIBK)	mg/kg	320		ND (0.0020)
Methylene chloride	mg/kg	97		ND (0.0098)
Styrene	mg/kg	260	_	ND (0.0039)
Tert Butyl Alcohol	mg/kg	11000	-	- 1
1,1,2,2-Tetrachloroethane	mg/kg	3	-	ND (0.0039)
Tetrachloroethene	mg/kg	5	_	ND (0.0039)
Toluene	mg/kg	91000	-	ND (0.0020)
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	mg/kg mg/kg	820		ND (0.0098) ND (0.0098)
1.1.1-Trichloroethane	mg/kg	4200		ND (0.0039)
1,1,2-Trichloroethane	mg/kg	6		ND (0.0039)
Trichloroethene	mg/kg	20	-	ND (0.0020)
Trichlorofluoromethane	mg/kg	340000	-	ND (0.0098)
Vinyl chloride	mg/kg	2		ND (0.0039)
m,p-Xylene	mg/kg	170000 170000	-	ND (0.0020)
o-Xylene Xylene (total)	mg/kg mg/kg	170000		ND (0.0020) ND (0.0020)
	mgmg	1,000		(0.0020)
GC/MS Volatile TIC				
Total TIC, Volatile	mg/kg	-	-	0.086 J
Total Alkanes	mg/kg			8.552 J

Client Sample ID:		NJ Non-	PSRR-SS-2 JB98641-7	PSRR-SS-2
Lab Sample ID:		Residential Direct Contact		JB98641-7R
Date Sampled:		Soil	7/7/2015	7/7/2015
Sample Depth:			1.0-1.5 ft	1.0-1.5 ft
Matrix:			Soil	Soil
GC/MS Semi-volatiles (SW846	8270D)			
2-Chlorophenol	mg/kg	2200	-	ND (0.085)
4-Chloro-3-methyl phenol	mg/kg	-	-	ND (0.21)
2,4-Dichlorophenol 2,4-Dimethylphenol	mg/kg mg/kg	2100 14000		ND (0.21) ND (0.21)
2,4-Dinitrophenol	mg/kg	1400	-	ND (0.21)
4,6-Dinitro-o-cresol 2-Methylphenol	mg/kg mg/kg	68 3400	-	ND (0.21) ND (0.085)
3&4-Methylphenol	mg/kg	-	-	ND (0.085)
2-Nitrophenol 4-Nitrophenol	mg/kg mg/kg	-	-	ND (0.21) ND (0.42)
Pentachlorophenol	mg/kg	10	-	ND (0.21)
Phenol 2,3,4,6-Tetrachlorophenol	mg/kg	210000	-	ND (0.085) ND (0.21)
2,4,5-Trichlorophenol	mg/kg mg/kg	68000	-	ND (0.21) a
2,4,6-Trichlorophenol	mg/kg	74	-	ND (0.21)
Acenaphthene Acenaphthylene	mg/kg	37000 300000	ND (0.042) 0.0210 J	ND (0.042) ND (0.042)
Acenaphthylene Acetophenone	mg/kg mg/kg	5	-	ND (0.21)
Anthracene Atrazine	mg/kg	30000 2400	0.0512	0.0292 J ND (0.085)
Atrazine Benzo(a)anthracene	mg/kg mg/kg	2	0.0838	0.0492
Benzo(a)pyrene	mg/kg	0.2	0.0541	0.0263 J
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	0.147 0.0456	0.0581 0.0244 J
Benzo(k)fluoranthene	mg/kg	23	0.0502	0.0208 J
4-Bromophenyl phenyl ether	mg/kg		-	ND (0.085) ^a
Butyl benzyl phthalate	mg/kg	14000	-	ND (0.085) ^a
1,1'-Biphenyl Benzaldehyde	mg/kg mg/kg	34000 68000	-	ND (0.085) ^a ND (0.21)
2-Chloronaphthalene	mg/kg	-	-	ND (0.085)
4-Chloroaniline Carbazole	mg/kg mg/kg	96	-	ND (0.21) ND (0.085) ^a
Caprolactam	mg/kg	340000	-	ND (0.085)
Chrysene	mg/kg	230	0.162	0.107
bis(2-Chloroethoxy)methane bis(2-Chloroethyl)ether	mg/kg mg/kg	2	-	ND (0.085) ND (0.085)
ois(2-Chloroisopropyl)ether	mg/kg	67	-	ND (0.085)
1-Chlorophenyl phenyl ether	mg/kg	3	-	ND (0.085) a
2,4-Dinitrotoluene 2,6-Dinitrotoluene	mg/kg mg/kg	3	-	ND (0.042) ND (0.042)
3,3'-Dichlorobenzidine	mg/kg	4	-	ND (0.085)
1,4-Dioxane Dibenzo(a,h)anthracene	mg/kg mg/kg	0.2	ND (0.042)	0.0638 ND (0.042)
Dibenzofuran	mg/kg	-	- (ND (0.085)
Di-n-butyl phthalate	mg/kg	68000 27000	-	ND (0.085) ^a ND (0.085)
Di-n-octyl phthalate Diethyl phthalate	mg/kg mg/kg	550000		ND (0.085) a
Dimethyl phthalate	mg/kg	-	-	ND (0.085) ^a
ois(2-Ethylhexyl)phthalate	mg/kg	140		ND (0.085) ^a
Fluoranthene Fluorene	mg/kg mg/kg	24000 24000	0.188 ND (0.042)	0.101 ND (0.042)
Hexachlorobenzene	mg/kg	1	-	ND (0.085)
Hexachlorobutadiene Hexachlorocyclopentadiene	mg/kg mg/kg	25 110	-	ND (0.042) ND (0.42)
Hexachloroethane	mg/kg	140		ND (0.21)
ndeno(1,2,3-cd)pyrene	mg/kg	2 2000	0.0471	0.0247 J
sophorone 2-Methylnaphthalene	mg/kg mg/kg	2000	-	ND (0.085) ND (0.085)
2-Nitroaniline	mg/kg	23000	-	ND (0.21)
3-Nitroaniline 4-Nitroaniline	mg/kg mg/kg	-	-	ND (0.21) ND (0.21)
Naphthalene	mg/kg	17	ND (0.042)	ND (0.042)
Nitrobenzene	mg/kg mg/kg	340 0.3	-	ND (0.085) ND (0.085)
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	mg/kg mg/kg	390	-	ND (0.085) ND (0.21) ^a
Phenanthrene	mg/kg	300000	0.112	0.0367 J
Pyrene 1,2,4,5-Tetrachlorobenzene	mg/kg mg/kg	18000	0.153	0.0544 ND (0.21)
	mg/kg		_	14D (U.Z I)
GC/MS Semi-volatile TIC				
Total TIC, Semi-Volatile	mg/kg	-	-	4 J
Total Alkanes	mg/kg	-	-	92.8 J
GC Semi-volatiles (NJDEP EPF	I)			
EPH (C9-C28)	mg/kg	-	756	-
EPH (>C28-C40)	mg/kg	-	218	-
Total EPH (C9-C40)	mg/kg	-	974	-
GC Semi-volatiles (SW846 808				
	mg/kg	1	ND (0.040)	-
		1	ND (0.074)	-
Aroclor 1016 Aroclor 1221	mg/kg			
Aroclor 1221 Aroclor 1232	mg/kg	1	ND (0.042)	-
Aroclor 1221 Aroclor 1232 Aroclor 1242	mg/kg mg/kg	1	ND (0.057)	-
Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248	mg/kg mg/kg mg/kg	1 1 1	ND (0.057) ND (0.039)	-
Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254	mg/kg mg/kg mg/kg mg/kg	1 1 1 1	ND (0.057) ND (0.039) ND (0.056)	-
Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248	mg/kg mg/kg mg/kg	1 1 1	ND (0.057) ND (0.039)	-

Table 4-1
Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results at AOC 49 - Electrician Shop Diesel/No. 2 Fuel Oil ASTs

Client Sample ID:		NJ Non-	PSRR-SS-2	PSRR-SS-2
Lab Sample ID:		Direct Contact	JB98641-7	JB98641-7R
Date Sampled:		Soil	7/7/2015	7/7/2015
Sample Depth:			1.0-1.5 ft	1.0-1.5 ft
Matrix:			Soil	Soil
Metals Analysis				
Aluminum	mg/kg	NA	5660	-
Antimony	mg/kg	450	<2.6	-
Arsenic	mg/kg	19	25.1	-
Barium	mg/kg	59000	54.6	-
Beryllium	mg/kg	140	0.5	-
Cadmium	mg/kg	78	<0.64	-
Calcium	mg/kg	-	3070	-
Chromium	mg/kg		15.2	-
Chromium, Hexavalent	mg/kg	-		-
Cobalt	mg/kg	590	8.6	-
Copper	mg/kg	45000	81.3	-
Iron	mg/kg	-	20300	-
Lead	mg/kg	800	65.5	-
Magnesium	mg/kg	-	3480	-
Manganese	mg/kg	5900	116	-
Mercury	mg/kg	65	0.23	-
Nickel	mg/kg	23000	20.2	-
Potassium	mg/kg	-	<1300	-
Selenium	mg/kg	5700	<2.6	-
Silver	mg/kg	5700	0.93	-
Sodium	mg/kg	-	<1300	-
Sulfur	mg/kg	-	-	-
Thallium	mg/kg	79	<1.3	-
Vanadium	mg/kg	1100	48.2	-
Zinc	mg/kg	110000	67.1	-
General Chemistry				
Solids, Percent	%	-	77.7	-

All results in mg/kg unless ot	herwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Table 4-1

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC-50 — Refinery Warehouse Diesel/No. 2 Fuel Oil ASTs

Client Sample ID:			WHT-SS-1	WHT-SS-2
Lab Sample ID:		NJ Non-	JB98641-11	JB98641-12
Date Sampled:		Residential Direct Contact	7/7/2015	7/7/2015
Sample Depth:		Soil	1.5-2.0 ft	1.5-2.0 ft
Matrix:			Soil	Soil
GC Semi-volatiles (NJDEP EPH)				
EPH (C9-C28)	mg/kg	-	ND (4.9)	ND (4.7)
EPH (>C28-C40)	mg/kg	-	ND (4.9)	23.2
Total EPH (C9-C40)	mg/kg	54000	ND (4.9)	23.2
Solids, Percent	%	-	83.7	88.6

All results in mg/kg unless of	therwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Client Sample ID:		NJ Non- Residential	TMTK-SS-1 (2.5-3.0)	TMTK-SS-2 (2.5-3.0)	TMTK-SS-3 (2.0-2.5)	TMTK-SS-4 (2.5-3.0)	TMTK-SS-5 (0.5-1.0)	TMTK-SS-6 (3.5-4.0)
Lab Sample ID:		Direct Contact	JB77096-1	JB77096-2	JB77096-3	JB77096-4	JB77096-5	JB77096-6
Date Sampled:		Soil	9/19/2014	9/19/2014	9/19/2014	9/19/2014	9/19/2014	9/19/2014
Sample Depth:			2.5-3.0	2.5-3.0	2.0-2.5	2.5-3.0	0.5-1.0	3.5-4.0
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds								
Acetone	mg/kg	-	0.0646	0.0487	0.0242	0.0492	ND (0.30)	0.0241
Benzene	mg/kg	5	ND (0.00016)	ND (0.00019)	ND (0.00017)	ND (0.00018)	ND (0.021)	ND (0.00025)
Bromochloromethane Bromodichloromethane	mg/kg mg/kg	3	ND (0.00025) ND (0.00019)	ND (0.00029) ND (0.00021)	ND (0.00027) ND (0.00020)	ND (0.00028) ND (0.00020)	ND (0.033) ND (0.024)	ND (0.00039) ND (0.00029)
Bromoform	mg/kg	280	ND (0.00019)	ND (0.00021)	ND (0.00020)	ND (0.00020)	ND (0.024)	ND (0.00029)
Bromomethane	mg/kg	59	ND (0.00026)	ND (0.00031)	ND (0.00029)	ND (0.00029)	ND (0.034)	ND (0.00041)
2-Butanone (MEK)	mg/kg	44,000	0.0054 J	0.0082 J	ND (0.0018)	0.0088 J	ND (0.22)	ND (0.0027)
Carbon disulfide	mg/kg	110,000	ND (0.00027)	ND (0.00031)	ND (0.00029)	ND (0.00029)	ND (0.034)	ND (0.00041)
Carbon tetrachloride Chlorobenzene	mg/kg	7.400	ND (0.00013) ND (0.00013)	ND (0.00015)	ND (0.00014)	ND (0.00014) ND (0.00014)	ND (0.017)	ND (0.00020) ND (0.00020)
Chloroethane	mg/kg mg/kg	1,100	ND (0.00013)	ND (0.00015) ND (0.00030)	ND (0.00014) ND (0.00028)	ND (0.00014)	ND (0.016) ND (0.034)	ND (0.00020)
Chloroform	mg/kg	2	ND (0.00012)	ND (0.00014)	ND (0.00013)	ND (0.00013)	ND (0.016)	ND (0.00019)
Chloromethane	mg/kg	12	ND (0.00028)	ND (0.00032)	ND (0.00030)	ND (0.00030)	ND (0.036)	ND (0.00043)
Cyclohexane	mg/kg	-	ND (0.00032)	ND (0.00037)	ND (0.00035)	ND (0.00035)	0.180 J	ND (0.00050)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00035)	ND (0.00041)	ND (0.00038)	ND (0.00039)	ND (0.046)	ND (0.00055)
Dibromochloromethane	mg/kg	8 0.04	ND (0.00016)	ND (0.00018)	ND (0.00017) ND (0.00018)	ND (0.00017)	ND (0.021)	ND (0.00025)
1,2-Dibromoethane 1,2-Dichlorobenzene	mg/kg mg/kg	59,000	ND (0.00016) ND (0.00017)	ND (0.00019) ND (0.00020)	ND (0.00018) ND (0.00019)	ND (0.00018) ND (0.00019)	ND (0.021) ND (0.022)	ND (0.00026) ND (0.00027)
1,3-Dichlorobenzene	mg/kg	59,000	ND (0.00017)	ND (0.00020)	ND (0.00019)	ND (0.00019)	ND (0.022)	ND (0.00027)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00015)	ND (0.00017)	ND (0.00016)	ND (0.00016)	ND (0.019)	ND (0.00023)
Dichlorodifluoromethane	mg/kg	230,000	ND (0.00047)	ND (0.00055)	ND (0.00051)	ND (0.00052)	ND (0.062)	ND (0.00074)
1,1-Dichloroethane	mg/kg	24	ND (0.00017)	ND (0.00019)	ND (0.00018)	ND (0.00018)	ND (0.022)	ND (0.00026)
1,2-Dichloroethane	mg/kg	3	ND (0.00023)	ND (0.00027)	ND (0.00025)	ND (0.00025)	ND (0.030)	ND (0.00036)
1,1-Dichloroethene cis-1,2-Dichloroethene	mg/kg mg/kg	150 560	ND (0.00025) ND (0.00024)	ND (0.00029) ND (0.00027)	ND (0.00027) ND (0.00026)	ND (0.00027) ND (0.00026)	ND (0.032) ND (0.031)	ND (0.00039) ND (0.00037)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00024)	ND (0.00021)	ND (0.00020)	ND (0.00020)	ND (0.022)	ND (0.00037)
1,2-Dichloropropane	mg/kg	5	ND (0.00016)	ND (0.00018)	ND (0.00017)	ND (0.00017)	ND (0.020)	ND (0.00024)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	ND (0.00013)	ND (0.00012)	ND (0.00013)	ND (0.015)	ND (0.00018)
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00015)	ND (0.00018)	ND (0.00017)	ND (0.00017)	ND (0.020)	ND (0.00024)
Ethylbenzene Freon 113	mg/kg	110,000	ND (0.00018)	ND (0.00020)	ND (0.00019)	ND (0.00019)	0.64	ND (0.00027)
2-Hexanone	mg/kg mg/kg	-	ND (0.00049) ND (0.0014)	ND (0.00057) ND (0.0017)	ND (0.00053) ND (0.0016)	ND (0.00054) ND (0.0016)	ND (0.064) ND (0.19)	ND (0.00077) ND (0.0023)
Isopropylbenzene	mg/kg	-	0.00019 J	ND (0.00019)	0.00023 J	ND (0.0018)	0.265 J	ND (0.0025)
Methyl Acetate	mg/kg	-	ND (0.0010)	ND (0.0012)	ND (0.0011)	ND (0.0011)	ND (0.13)	ND (0.0016)
Methylcyclohexane	mg/kg	-	ND (0.00020)	ND (0.00023)	ND (0.00021)	ND (0.00022)	1.53	ND (0.00031)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00015)	ND (0.00017)	ND (0.00016)	0.00065 J	ND (0.020)	ND (0.00024)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00049)	ND (0.00056)	ND (0.00053)	ND (0.00053)	ND (0.063)	ND (0.00076)
Methylene chloride Styrene	mg/kg	97 260	ND (0.0014) ND (0.00016)	ND (0.0016) ND (0.00019)	ND (0.0015) ND (0.00018)	ND (0.0015) ND (0.00018)	ND (0.18) ND (0.021)	ND (0.0021) ND (0.00026)
1,1,2,2-Tetrachloroethane	mg/kg mg/kg	3	ND (0.00016)	ND (0.00019)	ND (0.00018)	ND (0.00018)	ND (0.021)	ND (0.00026)
Tetrachloroethene	mg/kg	5	ND (0.00016)	ND (0.00019)	ND (0.00017)	ND (0.00018)	ND (0.021)	ND (0.00025)
Toluene	mg/kg	91,000	ND (0.00021)	ND (0.00024)	ND (0.00023)	0.00024 J	0.401	ND (0.00033)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00019)	ND (0.00021)	ND (0.00020)	ND (0.00020)	ND (0.024)	ND (0.00029)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00016)	ND (0.00019)	ND (0.00018)	ND (0.00018)	ND (0.021)	ND (0.00026)
1,1,1-Trichloroethane	mg/kg	4,200	ND (0.00013) ND (0.00020)	ND (0.00015)	ND (0.00014)	ND (0.00014)	ND (0.017)	ND (0.00020)
1,1,2-Trichloroethane Trichloroethene	mg/kg mg/kg	6 20	ND (0.00020)	ND (0.00023) ND (0.00021)	ND (0.00022) ND (0.00020)	ND (0.00022) ND (0.00020)	ND (0.026) ND (0.024)	ND (0.00031) ND (0.00028)
Trichlorofluoromethane	mg/kg	340,000	ND (0.00016)	ND (0.00021)	ND (0.00020)	ND (0.00020)	ND (0.024)	ND (0.00024)
Vinyl chloride	mg/kg	2	ND (0.00034)	ND (0.00039)	ND (0.00037)	ND (0.00037)	ND (0.044)	ND (0.00053)
m,p-Xylene	mg/kg	170,000	ND (0.00037)	ND (0.00043)	ND (0.00040)	ND (0.00041)	5.77	ND (0.00058)
o-Xylene	mg/kg	170,000	ND (0.00020)	ND (0.00023)	ND (0.00021)	ND (0.00021)	3.09	ND (0.00030)
Xylene (total)	mg/kg	170,000	ND (0.00020)	ND (0.00023)	ND (0.00021)	ND (0.00021)	8.86	ND (0.00030)
Total TIC, Volatile Total Alkanes	mg/kg	-	0	0	0	0	232.1 J (13) 26.6 J	0
	mg/kg		U	. 0	ι υ		20.0 J	U
Semi-Volatile Organic Compo	unds							
2-Methylnaphthalene	mg/kg	2400	ND (0.021)	ND (0.021)	ND (0.020)	ND (0.021)	0.967	ND (0.023)
Naphthalene	mg/kg	17	ND (0.010)	ND (0.010)	ND (0.0096)	ND (0.010)	0.768	ND (0.011)
Metal Compounds								
Lead	mg/kg	800	26.2	18.2	13.9	15.8	35.8	4.6
General Chemistry								
Solids, Percent	%	-	87.2	81.9	84.7	79.6	93.6	75
All results in mg/kg unless other			61.2	01.9	04.7		rams per kilogram	mg/kg
, an resource in mg/kg unicess other	**130 110160	••				miligi	Estimated Value	Ilig/kg J
							Not Sampled	NS
							Not Detected	ND
							Not Analyzed	NA
						Metho	od Detection Limit	()
						Compour	nd Found in Blank	В
					Health based st	andard defaults to s	oil saturation limit	**
							ult in from And run	

Exceeds NJDEP Non-Residential Soil Remediation Standard

Result is from 2nd run

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 53 - Second Tankfield

Client Sample ID:		J Non- sidential	TF2-5 (0.5-		TF2-SS-2 (2.0-2.5)	TF2-SS-3 (1.5-2.0)	TF2-SS-4 (2.0-2.5)	TF2-SS-5 (2.5-3.0)	TF2-SS-6 (2.5-3.0)	TF2-SS-7 (0.5-1.0)	TF2-SS-8 (1.5-2.0)	TF2-SS-9 (1.5-2.0)	TF2-SS-10 (0.5-1.0)	TF2-SS-11 (2.5-3.0)	TF2-SS-12 (1.5-2.0)	TF2-SS-13 (3.0-3.5)	TF2-SS-13 (2.5-3.0)	TF2-SS-14 (2.5-3.0)	TF2-SS-15 (3.0-3.5)	TF2-SS-16 (2.0-2.5)	TF2-SS-17 (1.5-2.0)	TF2-SS-18 (2.5-3.0)	TF2-SS-19 (5.5-6.0)	TF2-SS-20 (1.5-2.0)
Lab Sample ID: Date Sampled: Matrix:		Soil	JB7716 9/18/2 So	2014	JB77163-2 9/18/2014 Soil	JB77764-5/5R 9/26/2014 Soil	JB77764-6 9/26/2014 Soil	JB77163-3 9/18/2014 Soil	JB77163-4 9/18/2014 Soil	JB77163-5 9/18/2014 Soil	JB77676-1 9/24/2014 Soil	JB77969-1/1R 9/29/2014 Soil	JB77163-6 9/18/2014 Soil	JB77764-3 9/26/2014 Soil	JB77676-2 9/24/2014 Soil	JB77675-1 9/25/2014 Soil	JB77764-2 9/26/2014 Soil	JB77764-1 9/26/2014 Soil	JB77764-4 9/26/2014 Soil	JB77969-2 9/29/2014 Soil	JB77969-4 9/29/2014 Soil	JB77969-3 9/29/2014 Soil	JB76964-1 9/17/2014 Soil	JB76964-2 9/17/2014 Soil
NJDEP Extractable Petroleu	m Hydrocarbons						•	•			•					-					•		•	
C10-C12 Aromatics	mg/kg		ND (0.85)	-	ND (0.18)	30	ND (0.17)	ND (0.18)	ND (0.20)	ND (0.18) ND (0.26)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.19) ND (0.27)	ND (0.21)	ND (0.19)	ND (0.17)	ND (0.20)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.16)	ND (0.19)	6.55
C12-C16 Aromatics C16-C21 Aromatics	mg/kg mg/kg	-	41.9 244	-	ND (0.25) ND (0.37)	208 454	ND (0.25) ND (0.36)	ND (0.26) ND (0.38)	ND (0.28) ND (0.42)	ND (0.26) ND (0.38)	ND (0.25) 43.4	ND (0.24) 22.6	25.1 150	ND (0.27) ND (0.40)	ND (0.30) ND (0.45)	ND (0.26) ND (0.39)	ND (0.24) ND (0.35)	ND (0.28) ND (0.41)	ND (0.19) ND (0.27) ND (0.40)	ND (0.25) ND (0.37)	ND (0.26) ND (0.38)	ND (0.23) ND (0.34)	ND (0.27) ND (0.39)	ND (0.22) ND (0.32)
C21-C36 Aromatics Total Aromatics	mg/kg	-	308 593	-	ND (0.59) ND (0.18)	507 1,200	ND (0.58) ND (0.17)	ND (0.61) ND (0.18)	ND (0.67) ND (0.20)	ND (0.61) ND (0.18)	ND (0.59) 43.4	ND (0.57) 22.6	76.9 252	ND (0.63) ND (0.19)	ND (0.71) ND (0.21)	ND (0.62) ND (0.19)	ND (0.56) ND (0.17)	ND (0.65) ND (0.20)	ND (0.64) ND (0.19)	ND (0.59) ND (0.18)	ND (0.61) ND (0.18)	ND (0.55) ND (0.16)	ND (0.63) ND (0.19)	ND (0.52) 6.55
C9-C12 Aliphatics	mg/kg mg/kg	-	44.6	-	ND (0.16)	208	ND (0.16)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.16)	19.3	11.8	ND (0.17)	ND (0.20)	ND (0.17)	ND (0.15)	ND (0.18)	ND (0.17)	ND (0.16)	ND (0.17)	ND (0.15)	ND (0.17)	7.45
C12-C16 Aliphatics C16-C21 Aliphatics	mg/kg mg/kg	-	268 344	-	ND (0.25) ND (0.22)	751 921	ND (0.25) ND (0.22)	ND (0.26) ND (0.23)	ND (0.28) ND (0.25)	ND (0.26) 31.7	52.3 108	49.3 38.3	183 301	ND (0.27) ND (0.24) ND (0.70)	ND (0.30) ND (0.27)	ND (0.26) ND (0.23)	ND (0.24) ND (0.21)	ND (0.28) ND (0.25) ND (0.72)	ND (0.27) ND (0.24)	ND (0.25) ND (0.22)	ND (0.26) ND (0.23)	ND (0.23) ND (0.20)	ND (0.27) ND (0.24)	ND (0.22) ND (0.19)
C21-C40 Aliphatics Total Aliphatics	mg/kg mg/kg	-	716 1,370	-	ND (0.65) ND (0.16)	1,530 3,410	ND (0.64) ND (0.16)	ND (0.67) ND (0.17)	ND (0.73) ND (0.18)	36.9 68.6	86.7 247	16.2 123	139 635	ND (0.70) ND (0.17)	ND (0.79) ND (0.20)	ND (0.68) ND (0.17)	ND (0.61) ND (0.15)	ND (0.72) ND (0.18)	ND (0.70) ND (0.17)	ND (0.65) ND (0.16)	ND (0.67) ND (0.17)	ND (0.60) ND (0.15)	ND (0.69) ND (0.17)	ND (0.19) ND (0.57) 7.45
	Ca	alculated	1,970			4,610	ND (0.16)				290		887	ND (0.17)					ND (0.17)					14
Total EPH Volatile Organic Compound		tandard	1,970	-	ND (0.16)	4,610	ND (0.16)	ND (0.17)	ND (0.18)	68.6	290	146 [5,900]	007	ND (0.17)	ND (0.20)	ND (0.17)	ND (0.15)	ND (0.18)	ND (0.17)	ND (0.16)	ND (0.17)	ND (0.15)	ND (0.17)	14
Acetone		_		0.0293		ND (0.13)	_		_			0.0105							_	_	_		T -	_
Benzene	mg/kg mg/kg	5		ND (0.00016)	-	ND (0.0093)		-	-	-	-	ND (0.00016)	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK) Carbon disulfide		14,000 10,000	-	0.0053 J 0.00037 J	-	ND (0.098) ND (0.015)	-	-	-	-	-	ND (0.0017) ND (0.00027)	-	-	-	-		-	-	-	-	-	-	-
Carbon tetrachloride Chlorobenzene	mg/kg	7,400		ND (0.00013) ND (0.00013)	-	ND (0.0075) 0.0274 J	-	-	-	-	-	ND (0.00013) ND (0.00013)	-	-	-	-	<u> </u>	-	-	-	-	-	-	-
Cyclohexane 1.2-Dichlorobenzene	mg/kg	59,000	-	ND (0.00032) ND (0.00017)	-	0.0652 J 2.63	-	-	-	-	-	ND (0.00033) ND (0.00017)	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	3	-	ND (0.00023)	-	ND (0.013)	1	-		-	-	ND (0.00023)	-			-		-	-	-	- :	-	-	
1,1-Dichloroethene Ethylbenzene	mg/kg	150		ND (0.00025) ND (0.00018)	-	ND (0.014) 0.0204 J	-	-	-	-	-	ND (0.00025) ND (0.00018)	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg		-	0.00044 J ND (0.00020)	-	1.27 ND (0.011)	-	-		-	-	ND (0.00017) 0.00085 J	-	-	-	-	-	-	-	-	-	-	-	
Methyl Cert Butyl Ether	mg/kg mg/kg	320	-	ND (0.00015)	-	ND (0.0087)		-	1	-	-	ND (0.00015)	-	-	-	-	-	-	-	-	-	-	-	1
Methylene chloride 1,1,2,2-Tetrachloroethane	mg/kg mg/kg	3	-	ND (0.0014) ND (0.00020)	-	ND (0.078) ND (0.011)	-	-		-		ND (0.0014) ND (0.00020)	-	-	-	-	<u> </u>	-	-	-	-	-	-	
Tetrachloroethene Toluene	mg/kg	5 91,000	-	ND (0.00016) ND (0.00021)	-	ND (0.0093) ND (0.012)	-	-	-	-	-	ND (0.00016) ND (0.00021)	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	20	-	ND (0.00018) ND (0.00034)	-	ND (0.011) ND (0.020)	-	-	-	-	-	ND (0.00018) ND (0.00034)	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride Xylene (total)	mg/kg mg/kg 1	70,000		ND (0.00020)	-	ND (0.011)	-	-	-	-	-	ND (0.00020)	-	-	-	-	-	-	-	-	-	-	-	-
Total TIC, Volatile Total Alkanes	mg/kg mg/kg	-	-	0.479 J 0.358 J	-	135.8 J 17.1 J	-	-	-	-	-	0.568 J 0.252 J	-	-	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organic Comp																								
Acenaphthene	mg/kg		ND (0.048)		ND (0.050)	0.947	-	ND (0.052)	ND (0.057)	ND (0.052)	-	ND (0.010)	ND (0.050)	-	-	ND (0.053)	-	-	-	-	-	-	ND (0.054)	ND (0.044)
Benzo(a)anthracene	mg/kg		ND (0.059)	ND (0.012)	ND (0.062)	0.176	-	ND (0.064)	ND (0.070)	ND (0.064)	-	ND (0.012)	ND (0.062)	_		ND (0.065)		-	_	-	-	-	ND (0.066)	ND (0.054)
Ponzo(o)nyrono	ma/ka			0.0272	ND (0.077)	0.0630		ND (0.070)		ND (0.070)					-									
Benzo(a)pyrene Benzo(b)fluoranthene	mg/kg	2	ND (0.073) ND (0.090)	0.0373 0.0617	ND (0.077) ND (0.094)	0.0639 0.0467	-	ND (0.079) ND (0.098)	ND (0.087) ND (0.11)	ND (0.079) ND (0.097)	-	ND (0.011) ND (0.012)	ND (0.076) ND (0.094)	-	-	ND (0.081) ND (0.099)	:	-	-	-		-	ND (0.082) ND (0.10)	ND (0.067) ND (0.083)
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	2 30,000			ND (0.094) ND (0.12)		-		ND (0.087) ND (0.11) ND (0.13) ND (0.073)	ND (0.079) ND (0.097) ND (0.12) ND (0.067)	-	ND (0.011)	ND (0.076)	-	-	ND (0.081) ND (0.099) ND (0.12)		-	-	-	-	-		ND (0.083) ND (0.10)
Benzo(b)fluoranthene Benzo(g,h,i)perylene Chrysene Fluoranthene	mg/kg mg/kg mg/kg mg/kg mg/kg	2 30,000 230 24,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042)	0.0617 0.0646 0.303 0.0533	ND (0.094) ND (0.12) ND (0.065) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015)	-	ND (0.098) ND (0.12) ND (0.067) ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046)	-	ND (0.011) ND (0.012) ND (0.013) ND (0.012) ND (0.016)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044)	-	-	ND (0.081) ND (0.099) ND (0.12) ND (0.068) ND (0.046)	-	-	-		-	-	ND (0.10) ND (0.13) ND (0.069) ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J
Benzo(b)fluoranthene Benzo(g,h,i)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene	mg/kg mg/kg 3 mg/kg mg/kg mg/kg 2 mg/kg 2 mg/kg	2 30,000 230 24,000 24,000 2	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11)	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012)	-	ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12)	-	ND (0.011) ND (0.012) ND (0.013) ND (0.012) ND (0.012) ND (0.016) ND (0.012) ND (0.012)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.056) ND (0.11)	-	-	ND (0.081) ND (0.099) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.12)	- - - - -			-	-	-	ND (0.10) ND (0.13) ND (0.069) ND (0.047) ND (0.060) ND (0.12)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10)
Benzo(b)fluoranthene Benzo(g,h,i)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene	mg/kg mg/kg signal sign	2 30,000 230 24,000 24,000 2 17 00,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012) ND (0.0096) 2.41	-	ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)	-	ND (0.011) ND (0.012) ND (0.013) ND (0.012) ND (0.012) ND (0.015) ND (0.012) ND (0.012) ND (0.0098) ND (0.016)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	-	-	ND (0.081) ND (0.099) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.12) ND (0.046) ND (0.046)					-	-	ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(b)fluoranthene Benzo(g,h,l)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene Dibenzofuran	mg/kg mg/kg s mg/kg	2 30,000 230 24,000 24,000 2 17 00,000 18,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012) ND (0.0096) 2.41 0.25	-	ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J	-	ND (0.011) ND (0.012) ND (0.013) ND (0.013) ND (0.012) ND (0.016) ND (0.012) ND (0.012) ND (0.0098) ND (0.0098) ND (0.0016) ND (0.014) ND (0.014)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044)	-		ND (0.081) ND (0.099) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.12) ND (0.046)					-	-	ND (0.10) ND (0.13) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416
Benzo(b)fluoranthene Benzo(a, h.i)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Phenanthrene Pyrene Dibenzofuran Di-n-buty phthalate	mg/kg	2 30,000 230 224,000 24,000 2 17 00,000 18,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.0082)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012) ND (0.0096) 2.41 0.25 0.922 ND (0.0078)		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.014) ND (0.016) ND (0.016) ND (0.012) ND (0.012) ND (0.012) ND (0.008) ND (0.018) ND (0.018) ND (0.014) ND (0.011) 0.08	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	-	-	ND (0.081) ND (0.099) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.12) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046)		-	-	-			ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(ph)perviene Benzo(a, h)perviene Chrysene Fluoranthene Fluorene Indexnet (2, 3-cd)pyrene Naphthalene Phenanthrene Phenanthrene Dibenzofuran Dibenzofuran Dibenzofuran Dish-buty phthalate bis(2-Ethylhexyl)phthalate 2-Methylnaphthalene	mg/kg	2 30,000 230 24,000 24,000 2 17 00,000 18,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.0082) ND (0.033) ND (0.021)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012) ND (0.0096) 2.41 0.25 0.922 ND (0.0078) 0.144 37.4	-	ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.012) ND (0.012) ND (0.016) ND (0.016) ND (0.016) ND (0.014) ND (0.011) 0.08 ND (0.032) ND (0.020)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)		-	ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(p/hlucranthene Benzo(p/h).perylene Chrysene Fluoranthene Fluoranthene Fluoranthene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene Dienzofuran Di-h-butyl phthalate bis(2-Eityhkex/lyphthalate	mg/kg	2 30,000 230 24,000 24,000 2 17 00,000 18,000 - 38,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.0082) ND (0.0033)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012) ND (0.0096) 2.41 0.25 0.922 ND (0.0078)		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.013) ND (0.013) ND (0.013) ND (0.016) ND (0.016) ND (0.012) ND (0.012) ND (0.019) ND (0.019) ND (0.010) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.017) ND (0.017) 0.08	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.059) ND (0.046) ND (0.046) ND (0.062)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(ph)perylene Benzo(ph,p)perylene Chysene Fluoranthene Fluoranthene Indeno(1,2,3-d)pyrene Naphthalene Phenanthrene Phenanthrene Dienzofuran Dienzofuran Dienzofuran Total TIC, Semi-Volatile Z-Methylnaphthalene	mg/kg	2 30,000 230 24,000 24,000 2 17 00,000 18,000 - 38,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.0082) ND (0.033) ND (0.033) ND (0.021) 32.4 J	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012) ND (0.0096) 2.41 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.015) ND (0.012) ND (0.012) ND (0.015) ND (0.015) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.017) 0.08 ND (0.032) ND (0.032) ND (0.020)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(phluoranthene Benzo(ph.pperylene Chrysene Fluoranthene Fluoranthene Fluoranthene Indeno(1,2,3-d)pyrene Naphthalene Phenanthrene Phenanthrene Phenanthrene Dibenzofuran Dibenzofuran Dibenzofuran Dischelby(phthalate bis(2-Ethylhexyl)phthalate Z-Methylnaphthalene Total TiC, Semi-Volatile Total Alkanes	mg/kg	2 30,000 230 24,000 24,000 2 17 00,000 18,000 - 38,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.0082) ND (0.033) ND (0.033) ND (0.021) 32.4 J	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.012) ND (0.0096) ND (0.0096) 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.015) ND (0.015) ND (0.012) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.014) ND (0.011) 0.08 ND (0.032) ND (0.020) 1.36 J 4.63 J	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(ph)perylene Benzo(ph.)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Phenanthrene Phenanthrene Dienzofuran Dienzofuran Dienzofuran Total TiC, Semi-Volatile Total Alkanes Metal Compounds Aluminum Antimony	mg/kg	2 30,000 230 24,000 24,000 2 17 00,000 18,000 - 38,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0633 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.033) ND (0.033)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.38 ND (0.015) 1.89 ND (0.012) ND (0.0096) 2.41 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.012) ND (0.013) ND (0.014) ND (0.014) ND (0.032) ND (0.032) ND (0.032) A (0.033) ND (0.033) A (0.033)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(ph)perylene Benzo(ph.)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Phenanthrene Phenanthrene Dienzofuran Dienzofuran Dienzofuran Total TiC, Semi-Volatile Total Alkanes Metal Compounds Aluminum Antimomy Arsenic Barium	mg/kg mg/k	2 30,000 230 24,000 244,000 2 17 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0633 0.19 0.331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.032) ND (0.032) ND (0.033) ND (0.	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.38 ND (0.015) 1.89 ND (0.012) ND (0.00986) 2.41 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J 5.760 ND (2.3) ND (2.3)		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.012) ND (0.016) ND (0.016) ND (0.012) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.013) ND (0.014) ND (0.011) 0.08 ND (0.032) ND (0.032) ND (0.032) 1.36 J 4.63 J	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.1099) ND (0.12) ND (0.068) ND (0.068) ND (0.046) ND (0.058) ND (0.068)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(ph)perylene Benzo(a, h)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-od)pyrene Naphthelene Phenanthrene Phenanthrene Phenanthrene Dibenzofuran Dibenzofuran Dibenzofuran Di-n-butyl phthalate bis(2-Ethylhexyl)phthalate 2-Methylnaphthalene Total TiC, Semi-Volatile Total Alkanes Metal Compounds Aluminum Antimory Arsenic Barium Beryllium Cadmium	mg/kg mg/k	2 30,000 230 24,000 24,000 2 17 7 00,000 18,000 140 2,400	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.19 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.021) ND (0.033) ND (0.021) 32.4 J 6 J ND (2.2) 5.3 23 0.41 ND (0.54)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.38 0.38 ND (0.015) 1.89 ND (0.012) ND (0.00986) 2.41 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J 5.760 ND (2.3) ND (2.3) ND (2.3) 34.2 0.44 ND (0.58)		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.012) ND (0.016) ND (0.016) ND (0.012) ND (0.012) ND (0.012) ND (0.012) ND (0.012) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.017) ND (0.017) ND (0.017) ND (0.032) ND (0.032) ND (0.032) ND (0.032) A (63 J	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND (0.059) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(ph)perylene Benzo(ph.)perylene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Phenanthrene Phenanthrene Dienzofuran Dienzofuran Dienzofuran Total TiC, Semi-Volatile Total Alkanes Metal Compounds Aluminum Antimomy Arsenic Barium	mg/kg	2 30,000 230 240,000 240,000 241,000 2	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0553 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.0082) ND (0.033) ND (0.033) AD (0.034) 6 J 6.210 ND (2.2) 5.3 2.3 0.41	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.0096) ND (0.0096) 0.241 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J 5.760 ND (2.3) ND (2.3) 34.2 0.44		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.180 J ND (0.046)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.017) ND (0.018) ND (0.018) ND (0.018) ND (0.019) ND (0.019) ND (0.011) 0.08 ND (0.032) ND (0.032) ND (0.032) ND (0.033) 4.63 J	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.1099) ND (0.12) ND (0.068) ND (0.068) ND (0.046) ND (0.058) ND (0.068)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039)
Benzo(D)fluoranthene Benzo(B, D)perviene Chrysene Fluoranthene Fluorene Indenor(1,23-od)pyrene Naphthalene Phenanthrene Pyrene Dibenzofuran Di-h-butyl phthalete 2-Methynaphthalene Total Tic, Semi-Volatile Total Tic, Semi-Volatile Total Alkanes Metal Compounds Aluminum Antimory Arisenic Bervillum Cadmium Cadmium Cromium Cromium Cromium	mg/kg	2 0 30,000 230 240 000 220 240 000 244 000 2 2 17 7 00,000 18,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0553 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.033) ND (0.021) 32.4 J 6.210 ND (2.2) 5.3 23 0.41 ND (0.54)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.0096) 0.241 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J 5.760 ND (2.3) ND (2.3) 34.2 0.44 ND (0.58) 751 13.7 5.8		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.061)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.016) ND (0.016) ND (0.018) ND (0.017) ND (0.017) ND (0.018) ND (0.020) ND (0.032) ND (0.051)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.088) ND (0.046) ND (0.059) ND (0.059) ND (0.046) ND (0.059) ND (0.046) ND							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(D)fluoranthene Benzo(B, D)perviene Chrysene Fluoranthene Fluorene Indenor(1,23-od)pyrene Naphthalene Phenanthrene Pyrene Dibenzofuran Di-h-butyl phthalate Edderwigsphthalene Total TiC, Semi-Volatile Total Alkanes Metal Compounds Aluminum Antimomy Antimomy Antimomy Gadmium Cadmium Cadmium Codoiti Cooper	mg/kg	2 0 30,000 230 240 000 220 240 000 24 000 2 2 17 0 00,000 18,000 18,000 140 24,400 140 24,400 140 24,400 19 19 140 78 1550 145,500 - 1550 1550 1550 1550 1550 1550 1550	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0553 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.033) ND (0.033) AD (0.033) 4 J 6 J 6,210 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (5.4) 31.2 22,700	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) ND (0.050) ND (0.050) ND (0.078) 1.81 0.25 0.922 ND (0.078) 1.84 0.144 0.144 0.144 0.144 0.144 ND (0.58) 751 13.7 5.8 15.6 14,800		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.061)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.013) ND (0.012) ND (0.015) ND (0.015) ND (0.012) ND (0.016) ND (0.016) ND (0.017) ND (0.017) ND (0.018) ND (0.018) ND (0.032) ND (0.032) ND (0.032) ND (0.033) 4.63 J 10.100 ND (2.2) 4.6 124 0.6 ND (0.56) ND (0.56) ND (0.56) 1420 23.8 ND (0.56) 1420 23.8 9.5	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.088) ND (0.046) ND (0.059) ND (0.059) ND (0.046) ND (0.059) ND (0.046) ND							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(L) pluoranthene Benzo(L) pperviene Chrysene Fluoranthene Fluorene Indenor(1,23-od)pyrene Naphthalene Phenanthrene Pyrene Dienzofuran Dien-butyl phthalete Edderwing-phthalene Total TiC, Serni-Volatile Total TiC, Serni-Volatile Total Alkare Metal Compounds Aluminum Antimory Arisenic Barrium Berylium Cadnium Cromium Cromium Cromium Cromium Codalt Copper	mg/kg mg/k	2 0 30,000 230 240 000 220 240 000 244 000 2 2 17 7 00,000 18,000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.0082) ND (0.033) ND (0.021) 32.4 J 6.210 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (0.54) 31.2 22,700 43.4 1,940	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) 1.241 0.25 0.922 ND (0.0078) 1.44 37.4 51.8 J 41.1 J 5.760 ND (2.3) ND (2.3) ND (2.3) 34.2 0.44 ND (0.53) 34.2 0.44 ND (0.58) 751 13.7 5.8 15.6		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.061)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.015) ND (0.015) ND (0.016) ND (0.016) ND (0.017) ND (0.016) ND (0.020) ND (0.020) ND (0.020) ND (0.020) 1.36 J 4.63 J	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.088) ND (0.046) ND (0.059) ND (0.059) ND (0.046) ND (0.059) ND (0.046) ND							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(L) pluoranthene Benzo(L) pperviene Chrysene Fluoranthene Fluorene Indenor(1,23-od)pyrene Naphthalene Phenanthrene Pyrene Dienzofuran Dien-butyl phthalete Edderwing-phthalene Total TiC, Serni-Volatile Total TiC, Serni-Volatile Total Alkare Metal Compounds Aluminum Antimory Arisenic Barrium Berylium Cadnium Cromium Cromium Cromium Cromium Codalt Copper	mg/kg mg/k	2 30.000 230 24.000 230 24.000 22.00 24.000 22.00 24.000 22.000 20.000 2	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.010) ND (0.011) ND (0.033) ND (0.031) ND (0.031) ND (0.031) ND (0.21) 32.4 J 6.210 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (5.4) 31.2 22.700 43.4 1,940	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 1.89 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.0096) 2.41 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J 5,760 ND (2.3) ND (2.3) ND (2.3) ND (2.3) 1.37 5.8 1.56 14,800 8.6 2,690 1044		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.061)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.012) ND (0.013) ND (0.014) ND (0.014) ND (0.014) ND (0.014) ND (0.014) ND (0.014) ND (0.032) ND (0.032) ND (0.032) ND (0.032) A (0.08) ND (0.032) A (0.08) ND (0.032) A (0.08) ND (0.032) A (0.08) A	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.088) ND (0.046) ND (0.059) ND (0.059) ND (0.046) ND (0.059) ND (0.046) ND							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(ph)perviene Benzo(ph)perviene Fluorene Fluorene Fluorene Fluorene Indenot (1, 23-cd)pyrene Naphthalene Phenanthrene Phenanthrene Dhenzofuran Dienzofuran Matla (Campounds Aluminum Antimony Antimony Antimony Antimony Antimony Cadinum Cadinum Cadinum Cadinum Cadinum Cadinum Cadinum Clobalt Copper Iron Lead Magnesium Manganese Mercury Nickel	mg/kg mg/k	2 30,000 230 24,000 220 24,000 22 17 70 00,000 18,000 18,000 140 24,400 140 24,400 140 24,400 150 2	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.001) ND (0.003) ND (0.033) ND (0.033) ND (0.033) ND (0.033) ND (0.033) ND (0.033) ND (0.034) 132.4 J 6.210 ND (2.2) 23 23 24 190 (2.2) 1720 18.1 ND (0.54) 31.2 22.700 43.4 1,940 187 0.045	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 1.89 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.002) ND (0.002) ND (0.0008) 0.144 3.74 51.8 J 41.1 J 5.760 ND (2.3) ND (2.3) ND (2.3) ND (2.3) 1.56 1.56 1.4,800 8.6 2.690 1.044 ND (0.058)		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.067) ND (0.068) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.061)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.012) ND (0.013) ND (0.014) 1.06 ND (0.032) 1.1.66 J 4.63 J 4.64 J 6.64 J 6.74 J 7.74 J 7.75 J 7	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.102) ND (0.102) ND (0.102) ND (0.061) ND (0.061) ND (0.061) ND (0.062)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.057) ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(ph)perviene Benzo(ph)perviene Fluorene Fluorene Fluorene Fluorene Indenot (1, 23-cd)pyrene Naphthalene Phenanthrene Phenanthrene Dhenzofuran Dienzofuran Matla (Campounds Aluminum Antimony Antimony Antimony Antimony Antimony Cadinum Cadinum Cadinum Cadinum Cadinum Cadinum Cadinum Clobalt Copper Iron Lead Magnesium Manganese Mercury Nickel	mg/kg mg/k	2 30.000 230 24.000 230 24.000 22.000 24.000 22.000 24.000 22.000 25.000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.011) ND (0.010) ND (0.033) ND (0.034) ND (0.034) ND (0.035) ND (0.035) ND (0.031) 132.4 1,940 187 0.045 12.4 ND (1,100) ND (1,100) ND (1,100)	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 1.89 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.002) ND (0.0020) ND (0.0008) 0.241 0.25 0.922 ND (0.0078) 0.144 37.4 51.8 J 41.1 J 5.760 ND (2.3) ND (2.3) ND (2.3) 13.7 5.8 14.800 8.6 2.690 104 ND (0.034) ND (0.034) ND (0.004) 14.3 ND (0.004) ND (0.004)		ND (0.098) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.12) 0.171 J ND (0.046)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.050) ND (0.063) ND (0.13) ND (0.13) ND (0.050) ND (0.050) ND (0.050)	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.067)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.012) ND (0.013) ND (0.012) ND (0.012) ND (0.016) ND (0.012) ND (0.012) ND (0.012) ND (0.012) ND (0.012) ND (0.013) ND (0.014) A (0.08) ND (0.032) A (0.08) A (0.08) A (0.08) ND (0.032) A (0.08) ND (0.032) A (0.08) ND (0.08)	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(D)fluoranthene Benzo(B, D)perviene Chrysene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phemathrene Pyrene Dibenzofuran Di-n-butyl phthalate bis(2-Ethytheyd)phthalate 2-Methyfnaphthalene Total TiC, Semi-Volatile Total Alkanes Metal Compounds Auminum Antimoruy Arsenic Bartum Beryllium Cadmium Cadmium Cadmium Chromium Chromium Chromium Cobait Copper Iron Lead Magneseum Manganesee Mercury	mg/kg mg/k	2 30.000 230 24.000 230 24.000 22.000 24.000 22.000 24.000 22.000 25.000	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.033) ND (0.021) 32.4 J 6.J 6.J 6.J 6.J 6.J 6.J 6.J 6.J 6.J 6.	ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) 1.241 0.25 0.922 ND (0.0078) 1.44 37.4 51.8 J 41.1 J 5,760 ND (2.3) ND (2.3) ND (2.3) ND (2.3) 1.5 6 1.8 6 1.		ND (0.089) ND (0.12) ND (0.067) ND (0.067) ND (0.058) ND (0.058) ND (0.12) 0.171 J ND (0.061) ND (0.061)	ND (0.087) ND (0.11) ND (0.13) ND (0.13) ND (0.073) ND (0.050) ND (0.080) ND	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.067)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.015) ND (0.015) ND (0.016) ND (0.020) ND (0.020) ND (0.020) ND (0.020) 1.36 J 4.63 J 10.100 10.100 11.24 0.6 0.8 10.100 11.24 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.4 0.8 12.4 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8	ND (0.076) ND (0.094) ND (0.12) ND (0.065) ND (0.044) ND (0.056) ND (0.11) ND (0.044) ND (0.044)			ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(b) fluoranthene Benzo(ch) pluoranthene Benzo(ch) pluorene Chrysene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Naphthalene Naphthalene Pyrene Dibenzotrun Di-n-butyl phthalate Edditylnaphthalene Total Alkanes Metal Compounds Alminum Antimony Artsenic Bartum Beryflum Cadnium Cadnium Cadnium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Se	mg/kg mg/k	2 30,000 230 24,000 2 2 17 7 0 0,000 18,000 1 140 2,400 1 140 2,400 1 140 2,400 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.013) ND (0.021) 32.4 J 6.2 J 6.2 10 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (0.54) 31.2 22,700 43.4 1,940 187 0.045 12.4 ND (1.100) ND (2.2) 0.86	ND (0.094) ND (0.12) ND (0.065) ND (0.065) ND (0.056) ND (0.056) ND (0.011) ND (0.044) ND (0.044) ND (0.056)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) ND (0.050) ND (0.050) ND (0.078)		ND (0.089) ND (0.12) ND (0.067) ND (0.067) ND (0.058) ND (0.058) ND (0.12) 0.171 J ND (0.061) ND (0.061)	ND (0.087) ND (0.11) ND (0.13) ND (0.13) ND (0.073) ND (0.050) ND (0.080) ND	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.067)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.015) ND (0.015) ND (0.016) ND (0.020) ND (0.020) ND (0.020) ND (0.020) 1.36 J 4.63 J 10.100 10.100 11.24 0.6 0.8 10.100 11.24 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.3 12.4 0.8 12.5 12.5 12.7 12.7 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.8	ND (0.076) ND (0.094) ND (0.094) ND (0.12) ND (0.055) ND (0.044) ND (0.044) ND (0.044) ND (0.044) ND (0.044) ND (0.055)	-		ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND	-						ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.057) ND (0.049) ND (0.10) 0.416 ND (0.039) ND (0.052)
Benzo(L) pluoranthene Benzo(L) pluoranthene Benzo(L) pluorene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Pluoranthene Naphthalene Phenanthrene Pyrene Dibenzofuran Di-n-butyl phthalate biel(2-Ethythalate) pluoranthene Total Tick semi-Volatile Total Tick semi-Volatile Total Alkanes Metal Compounds Auminum Antimoray Artsenic Bartum Beryllium Cadnium Cadnium Cadnium Cromium Cromium Cromium Cromium Cromium Cromium Selenium Manganese Mercury Nickel Potas sium Selenium Selenium Selenium Selenium Selenium Selenium Solenium Soleniu	mg/kg mg/k	2 0 30,000 230 230 24,000 2 20 27 27 24,000 2 2 20 24,000 2 2 20 24,000 2 2 2 17 20 20 20 20 20 20 20 20 20 20 20 20 20	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.013) ND (0.021) 32.4 J 6.2 J 6.2 10 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (0.54) 31.2 22,700 43.4 1,940 187 0.045 12.4 ND (1.100) ND (2.2) 0.88 ND (1.100)	ND (0.094) ND (0.12) ND (0.065) ND (0.065) ND (0.056) ND (0.056) ND (0.011) ND (0.044) ND (0.044) ND (0.056)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) ND (0.050) ND (0.050) ND (0.078)		ND (0.089) ND (0.12) ND (0.067) ND (0.067) ND (0.058) ND (0.058) ND (0.12) 0.171 J ND (0.061) ND (0.061)	ND (0.087) ND (0.11) ND (0.13) ND (0.13) ND (0.073) ND (0.050) ND (0.080) ND	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.067)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.015) ND (0.015) ND (0.015) ND (0.015) ND (0.017) ND (0.017) ND (0.017) ND (0.018) ND (0.032) ND (0.032) ND (0.032) ND (0.032) ND (0.032) A (63 J	ND (0.076) ND (0.094) ND (0.094) ND (0.12) ND (0.055) ND (0.044) ND (0.044) ND (0.044) ND (0.044) ND (0.055) ND (0.044) ND (0.045)	-		ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND	-						ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.049) ND (0.059) ND (0.059) ND (0.059) ND (0.059) ND (0.052)
Benzo(L) plucranthene Benzo(L) pluperjene Chrysene Flucranthene Flucrene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene Dibenzofuran Di-houtyl phthalate bis(2-Ethythalate) bis(mg/kg mg/k	2 0 30,000 230 230 24,000 2 20 27 27 24,000 2 2 20 24,000 2 2 20 24,000 2 2 2 17 20 20 20 20 20 20 20 20 20 20 20 20 20	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.013) ND (0.021) 32.4 J 6.J 6.210 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (0.54) 31.2 22,700 43.4 1,940 187 0.045 12.4 ND (1.100) ND (2.2) 0.88 ND (1.1100)	ND (0.094) ND (0.12) ND (0.065) ND (0.065) ND (0.056) ND (0.056) ND (0.011) ND (0.044) ND (0.044) ND (0.056)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) ND (0.050) ND (0.050) ND (0.078)		ND (0.089) ND (0.12) ND (0.067) ND (0.067) ND (0.058) ND (0.058) ND (0.12) 0.171 J ND (0.061) ND (0.061)	ND (0.087) ND (0.11) ND (0.13) ND (0.13) ND (0.073) ND (0.050) ND (0.080) ND	ND (0.097) ND (0.12) ND (0.12) ND (0.067) ND (0.046) ND (0.058) ND (0.058) ND (0.058) ND (0.058) ND (0.067)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.016) ND (0.016) ND (0.016) ND (0.017) ND (0.017) ND (0.017) ND (0.018) ND (0.018) ND (0.018) ND (0.018) ND (0.018) ND (0.018) ND (0.032) A (63 J	ND (0.076) ND (0.094) ND (0.094) ND (0.12) ND (0.055) ND (0.044) ND (0.044) ND (0.044) ND (0.044) ND (0.055) ND (0.044) ND (0.045)	-		ND (0.081) ND (0.099) ND (0.12) ND (0.12) ND (0.068) ND (0.046) ND	-						ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.049) ND (0.059) ND (0.059) ND (0.059) ND (0.059) ND (0.052)
Benzo(p.fluoranthene Benzo(p.fluoranthene Benzo(p.fluoperiene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Pyrene Dishozofuran Matalian Asternic Bartum Bartum Bartum Gadnium Cadoinum Crromium Crromium Crromium Cromium Cromium Cromium Sadenium Manganese Mercury Nickel Potassium Sadenium Sadeni	mg/kg mg/k	2 0 30,000 230 230 24,000 2 20 27 27 24,000 2 2 20 24,000 2 2 20 24,000 2 2 2 17 20 20 20 20 20 20 20 20 20 20 20 20 20	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.013) ND (0.021) 32.4 J 6.2 J 6.2 10 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (0.54) 31.2 22,700 43.4 1,940 187 0.045 12.4 ND (1.100) ND (2.2) 0.88 ND (1.100)	ND (0.094) ND (0.12) ND (0.065) ND (0.056) ND (0.056) ND (0.057) ND (0.056) ND (0.011) ND (0.044) ND (0.058)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) ND (0.050) ND (0.050) ND (0.078)		ND (0.098) ND (0.12) ND (0.067) ND (0.067) ND (0.058) ND (0.058) ND (0.12) 0.171.J ND (0.068) ND (0.061)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.073) ND (0.050) ND (0.060) ND	ND (0.097) ND (0.12) ND (0.067) ND (0.068) ND (0.058) ND (0.058) ND (0.058) ND (0.066)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.012) ND (0.013) ND (0.014)	ND (0.076) ND (0.094) ND (0.12) ND (0.085) ND (0.044) ND (0.044) ND (0.056) ND (0.044) ND (0.056) ND (0.047) ND (0.049) ND (0.049) ND (0.049) ND (0.049) ND (0.049) ND (0.049)	-	-	ND (0.081) ND (0.099) ND (0.102) ND (0.102) ND (0.102) ND (0.061) ND (0.061) ND (0.061) ND (0.062)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.049) ND (0.059) ND (0.059) ND (0.059) ND (0.059) ND (0.052)
Benzo(ph)pperfere Benzo(ph)pperfere Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Naphthalene Naphthalene Pyrene Dibenzoffuran Di-n-butyl phthalate bis(2-Ethythexyl)phthalate 2-Methylnaphthalene Total Tic, Sami-Volatile Total Tic, Sami-Volatile Total Alkanes Metal Compounds Auminum Antimorny Artsenic Barium Beryflum Cadnium Cadnium Cadnium Ciromium Cromium Cromium Cromium Cromium Cromium Selenium Manganese Mercury Nickel Protassium Selenium Seleni	mg/kg mg/k	2 0 30,000 230 230 24,000 2 20 27 27 24,000 2 2 20 24,000 2 2 20 24,000 2 2 2 17 20 20 20 20 20 20 20 20 20 20 20 20 20	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0553 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.011) ND (0.0082) ND (0.011) ND (0.0082) ND (0.011) ND (0.033) ND (0.021) 32.4 J 6.J 6.J 6.J 6.J 8.210 8.23 0.41 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 1821 1821 1841 ND (5.4) 1872 1827 0.045 ND (2.2) 0.88 ND (1.100) ND (2.2) 0.88 ND (1.100) ND (2.2)	ND (0.094) ND (0.12) ND (0.065) ND (0.056) ND (0.056) ND (0.057) ND (0.056) ND (0.011) ND (0.044) ND (0.058)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) ND (0.050) ND (0.050) ND (0.078)		ND (0.098) ND (0.12) ND (0.067) ND (0.067) ND (0.058) ND (0.058) ND (0.12) 0.171.J ND (0.068) ND (0.061)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.073) ND (0.050) ND (0.060) ND	ND (0.097) ND (0.12) ND (0.067) ND (0.068) ND (0.058) ND (0.058) ND (0.058) ND (0.066)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.017) ND (0.017) ND (0.017) ND (0.018) ND (0.018) ND (0.018) ND (0.018) ND (0.018) ND (0.018) ND (0.032) ND (0.032) ND (0.032) ND (0.032) A (63 J A (6	ND (0.076) ND (0.094) ND (0.12) ND (0.085) ND (0.044) ND (0.044) ND (0.056) ND (0.044) ND (0.056) ND (0.047) ND (0.049) ND (0.049) ND (0.049) ND (0.049) ND (0.049) ND (0.049)	-	-	ND (0.081) ND (0.099) ND (0.102) ND (0.102) ND (0.102) ND (0.061) ND (0.061) ND (0.061) ND (0.062)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.049) ND (0.049) ND (0.052)
Benzo(ph)pperfere Benzo(ph)pperfere Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Pyrene Naphthalene Pyrene Dibenzofuran Di-n-butyl phthalate bis(2-Ethythesylphthalate 2-Methylnaphthalene Total Tic, Semi-Volatile Total Alkanes Metal Compounds Aluminum Antimomy Arisenic Barium Beryfilum Cadmium Cadmium Cadmium Ciromium Cromium Cromium Cromium Cromium Codal Rappesium Manganese Mercury Nickel Potas sium Selenium Se	mg/kg mg/k	2 0 30,000 230 230 24,000 2 20 27 27 24,000 2 2 20 24,000 2 2 20 24,000 2 2 2 17 20 20 20 20 20 20 20 20 20 20 20 20 20	ND (0.090) ND (0.11) ND (0.062) ND (0.042) ND (0.054) ND (0.11) 0.181 J 0.322	0.0617 0.0646 0.303 0.0533 0.19 0.0331 J ND (0.010) 0.367 0.139 ND (0.010) ND (0.0082) ND (0.013) ND (0.021) 32.4 J 6.J 6.210 ND (2.2) 5.3 23 0.41 ND (0.54) 1720 18.1 ND (0.54) 31.2 22,700 43.4 1,940 187 0.045 12.4 ND (1.100) ND (2.2) 0.88 ND (1.1100)	ND (0.094) ND (0.12) ND (0.065) ND (0.056) ND (0.056) ND (0.057) ND (0.056) ND (0.011) ND (0.044) ND (0.058)	0.0467 ND (0.013) 0.36 ND (0.015) 1.89 ND (0.015) 1.89 ND (0.012) ND (0.050) ND (0.050) ND (0.050) ND (0.078)		ND (0.098) ND (0.12) ND (0.067) ND (0.067) ND (0.058) ND (0.058) ND (0.12) 0.171.J ND (0.068) ND (0.061)	ND (0.087) ND (0.11) ND (0.13) ND (0.073) ND (0.073) ND (0.050) ND (0.060) ND	ND (0.097) ND (0.12) ND (0.067) ND (0.068) ND (0.058) ND (0.058) ND (0.058) ND (0.066)		ND (0.011) ND (0.012) ND (0.012) ND (0.013) ND (0.013) ND (0.016) ND (0.016) ND (0.016) ND (0.017) ND (0.017) ND (0.018) ND (0.032) A (63 J 10,100 ND (2.2) 4 6 124 0.6 ND (0.56) 1420 1424 0.6 ND (0.56) 1420 1424 0.6 ND (0.033) ND (0.035) ND (0.035) ND (0.035) ND (0.035) ND (0.035) ND (0.056) ND (1.00)	ND (0.076) ND (0.094) ND (0.12) ND (0.085) ND (0.044) ND (0.044) ND (0.056) ND (0.044) ND (0.056) ND (0.047) ND (0.049) ND (0.049) ND (0.049) ND (0.049) ND (0.049) ND (0.049)	-	-	ND (0.081) ND (0.099) ND (0.102) ND (0.102) ND (0.102) ND (0.061) ND (0.061) ND (0.061) ND (0.062)							ND (0.10) ND (0.13) ND (0.069) ND (0.069) ND (0.047) ND (0.060) ND (0.12) 0.193 J ND (0.047)	ND (0.083) ND (0.10) ND (0.057) 0.132 J ND (0.049) ND (0.049) ND (0.049) ND (0.052)

milligrams per kilogram mg/kg
Estimated Value J
Not Sampled NS
Not Detected ND
Not Analyzed NA
Method Detection Limit ()
Compound Found in Blank
Health based standard defaults to soil saturation limit
Result is from 2nd run a b

Client Sample ID:		NJ Non- Residential	TF4-SS-1 (10.5-11.0) JB76644-1	TF4-SS-2 (6.0-6.5)	TF4-SS-3 (5.0-5.5)	TF4-SS-4 (3.0-3.5) JB76467-4	TF4-SS-5 (8.0-8.5) JB76644-4	TF4-SS-6 (10.0-10.5) JB76644-3	TF4-SS-7 (6.0-6.5) JB76415-1	TF4-SS-8 (8.5-9.0)	(10.5	-SS-9 i-11.0)	TF4-SS-10 (10.5-11.0 JB76415-
Lab Sample ID: Date Sampled: Sample Depth:		Direct Contact Soil	9/15/2014 10.5-11.0	JB76644-2 9/15/2014 6.0-6.5	JB76467-3 9/11/2014 5.0-5.5	9/11/2014 3.0-3.5	9/15/2014 8.0-8.5	9/15/2014 10.0-10.5	9/12/2014 6.0-6.5	JB76415-2 9/12/2014 8.5-9.0	9/12	15-3/3R 1/2014 5-11.0	9/12/201 10.5-11.
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	S	ioil	Soil
olatile Organic Compounds													
enzene	mg/kg	5 110,000	- :	-	-		-	-	-	-	-	0.0559 J 0.126 J	-
arbon disulfide hlorobenzene	mg/kg mg/kg	7,400	-	-	-	-	-	-	-	-	-	0.169 J	
thylbenzene ethyl Acetate	mg/kg mg/kg	110,000	-	-	-		-	-	-	-	-	0.135 0.977	-
lethyl Tert Butyl Ether etrachloroethene	mg/kg mg/kg	320 5	- :	-	-		-	-	-	-	-	ND (0.022) ND (0.023)	- :
oluene ,1,1-Trichloroethane	mg/kg mg/kg	91,000 4,200	- :	-	-		-	- :	- :	-	- :	0.0659 J ND (0.018)	- :
,1,2-Trichloroethane	mg/kg	6 20		-	-		-	-	-	-	-	ND (0.029) ND (0.026)	-
'inyl chloride	mg/kg mg/kg	2	- :	-	-	-	-	-	-	-	-	ND (0.049)	
n,p-Xylene Xylene	mg/kg mg/kg	170,000 170,000	-	-	-		-					0.277 0.193	- :
(ylene (total) otal TIC, Volatile	mg/kg mg/kg	170,000		-	-		-	-	-	-	-	0.47 13.54 J (12)	-
otal Alkanes	mg/kg		-	-	-		-	•	-	-	•	1.2 J	-
emi-Volatile Organic Compo	unds												
cenaphthene	mg/kg	37,000	ND (0.072)	ND (0.050)	ND (0.042)	ND (0.044)	ND (0.049)	2.38	ND (0.043)	ND (0.048)	0.410 J	0.104	ND (0.04
cenaphthylene nthracene	mg/kg mg/kg	300,000 30,000	ND (0.063) 0.315 J	ND (0.044) ND (0.044)	ND (0.037) ND (0.037)	ND (0.039) ND (0.039)	ND (0.043) ND (0.043)	ND (0.049) 3.24	ND (0.038) ND (0.038)	ND (0.042) ND (0.042)	ND (0.067) 0.697	0.065 0.191	ND (0.04) ND (0.04)
-Chlorophenol enzo(a)anthracene	mg/kg mg/kg	2,200 2	0.554	ND (0.062)	ND (0.052)	ND (0.055)	ND (0.061)	0.775	ND (0.053)	ND (0.059)	0.942	ND (0.053) 0.243	ND (0.06
-Chloro-3-methyl phenol ,4-Dichlorophenol	mg/kg mg/kg	2,100	-	-	-	-	-	-	-	-	-	ND (0.053) ND (0.086)	-
enzo(a)pyrene	mg/kg	0.2	0.502	ND (0.077)	ND (0.064)	ND (0.067)	ND (0.075)	0.384	ND (0.065)	ND (0.074)	0.697	0.207	ND (0.07
2,4-Dimethylphenol Benzo(b)fluoranthene	mg/kg mg/kg	14,000 2	0.572	- ND (0.095)	- ND (0.079)	- ND (0.083)	- ND (0.092)	0.495	- ND (0.081)	- ND (0.091)	0.664	ND (0.089) 0.288	ND (0.09
4,4-Dinitrophenol Benzo(g,h,i)perylene	mg/kg mg/kg	1,400 30,000	- 0.271 J	- ND (0.12)	ND (0.099)	- ND (0.10)	- ND (0.12)	0.172 J	- ND (0.10)	- ND (0.11)	0.449 J	ND (0.065) 0.146	ND (0.12
Benzo(k)fluoranthene ,6-Dinitro-o-cresol	mg/kg mg/kg	23	0.161 J	ND (0.095)	ND (0.079)	ND (0.083)	ND (0.092)	0.170 J	ND (0.081)	ND (0.091)	0.257 J	0.0718 ND (0.065)	ND (0.09
Chrysene	mg/kg	230	0.464 ND (0.11)	ND (0.065)	ND (0.054) ND (0.064)	ND (0.057)	ND (0.063)	0.708 ND (0.085)	ND (0.055)	ND (0.062)	0.886 ND (0.12)	0.309 0.0415 J	ND (0.06
Dibenzo(a,h)anthracene luoranthene	mg/kg mg/kg	0.2 24,000	ND (0.11) 0.854	ND (0.077) ND (0.044)	ND (0.064) ND (0.037)	ND (0.067) ND (0.039)	ND (0.075) 0.134 J	ND (0.085) 4.14	ND (0.065) ND (0.038)	ND (0.074) ND (0.042)	ND (0.12) 2.13	0.626	ND (0.07 ND (0.04
-Methylphenol luorene	mg/kg mg/kg	3,400 24,000	- ND (0.080)	- ND (0.056)	- ND (0.047)	- ND (0.049)	ND (0.055)	2.19	- ND (0.048)	ND (0.054)	ND (0.085)	ND (0.061) ND (0.017)	ND (0.05
&4-Methylphenol	mg/kg	-	0.192 J	ND (0.12)	ND (0.000)		-	- 0.147 J	- ND (0.000)	-	0.404.1	ND (0.068)	-
ndeno(1,2,3-cd)pyrene -Nitrophenol	mg/kg mg/kg	2		-	ND (0.096)	ND (0.10)	ND (0.11)	-	ND (0.098)	ND (0.11)	0.421 J	0.143 ND (0.056)	ND (0.11
laphthalene -Nitrophenol	mg/kg mg/kg	17	0.350 J	0.149 J -	ND (0.037)	ND (0.039)	0.124 J	0.782	ND (0.038)	ND (0.042)	0.486	0.0319 J ND (0.090)	ND (0.04
Pentachlorophenol Phenanthrene	mg/kg mg/kg	10 300,000	- 0.252 J	- ND (0.044)	- ND (0.037)	- ND (0.039)	ND (0.043)	4.79	- ND (0.038)	ND (0.042)	0.443 J	ND (0.091) 0.074	ND (0.04
Pyrene otal TIC, Semi-Volatile	mg/kg mg/kg	18,000	1.47	ND (0.059)	ND (0.049)	ND (0.052)	ND (0.058)	3.1	ND (0.050)	ND (0.057)	2.32	0.605 15.36 J (22)	ND (0.05
ew Jersey Department of En 10-C12 Aromatics 12-C16 Aromatics	mg/kg mg/kg	•	ND (0.25) ND (0.36)	ND (0.18) ND (0.25)	ND (0.15) ND (0.21)	ND (0.16) ND (0.22)	ND (0.17) ND (0.25)	ND (0.20) 13.9	ND (0.15) ND (0.21)	ND (0.17) ND (0.24)	ND (0.27) 35.5	-	ND (0.17 ND (0.25
16-C21 Aromatics	mg/kg	-	88.4	ND (0.37)	ND (0.31)	ND (0.32)	ND (0.36)	110	ND (0.31)	ND (0.35)	328	-	ND (0.36
C21-C36 Aromatics otal Aromatics	mg/kg mg/kg		213 301	ND (0.59) ND (0.18)	ND (0.49) ND (0.15)	ND (0.52) ND (0.16)	ND (0.58) ND (0.17)	83.1 207	ND (0.50) ND (0.15)	ND (0.57) ND (0.17)	441 805	-	ND (0.58 ND (0.17
09-C12 Aliphatics 012-C16 Aliphatics	mg/kg mg/kg	-	ND (0.23) 42.0	ND (0.16) ND (0.25)	ND (0.14) ND (0.21)	ND (0.14) ND (0.22)	ND (0.16) ND (0.25)	13.9 61.3	ND (0.14) ND (0.21)	ND (0.16) ND (0.24)	98.5 421	-	ND (0.16 ND (0.25
C16-C21 Aliphatics C21-C40 Aliphatics	mg/kg mg/kg	-	71.6 169	ND (0.22) ND (0.65)	ND (0.18) ND (0.54)	ND (0.19) ND (0.57)	ND (0.22) ND (0.63)	89.1 164	ND (0.19) ND (0.55)	ND (0.21) ND (0.62)	506 1,040	-	ND (0.22 ND (0.64
Fotal Aliphatics	mg/kg mg/kg	SS ¹	283 584 [3,200]	ND (0.16) ND (0.16)	ND (0.14) ND (0.14)	ND (0.14) ND (0.14)	ND (0.16) ND (0.16)	328 535 [4,100]	ND (0.14) ND (0.14)	ND (0.16) ND (0.16)	2,060 2,870 [5,200]	-	ND (0.16 ND (0.16
	Illig/kg	00	304 [0,200]	140 (0.10)	140 (0.14)	140 (0.14)	140 (0.10)	333 [4,100]	ND (0.14)	145 (0.10)	2,070 [0,200]	-	140 (0.10
letal Compounds													
luminum ntimony	mg/kg mg/kg	- 450	:	-	-	_ : _	-	-	-	-	-	14,600 4.7	
rsenic arium	mg/kg mg/kg	19 59,000	-	-	-		-	-	:	-	-	115 419	-
eryllium admium	mg/kg mg/ka	140	-	-	-	-	-	-	-	-	-	0.9	-
alcium	mg/kg	-	-	-	-	-	-	-	-	-	-	2,810	:
Chromium Cobalt	mg/kg mg/kg	- 590	-	-	-	-	-	-	-	-	-	133 9.3	_:
opper on	mg/kg mg/kg	45,000	- :	-	-		-		-	-		519 32,200	- :
ead lagnesium	mg/kg mg/kg	800		-	-		-	-	-	-	-	283 5,170	
langanese	mg/kg	5,900	-	-	-		-	-		-	-	289	
lercury lickel	mg/kg mg/kg	65 23,000	-	-	-		-	-	-	-	-	8.6 38.6	- :
otassium elenium	mg/kg mg/kg	5,700	-	-	-	-	-	-	-	-	-	2,610 9.5	<u> </u>
ilver odium	mg/kg mg/kg	5,700	-	-	-		-	-	-	-	-	3.6 1,420	- :
hallium anadium	mg/kg mg/kg	79 1,100	-	-	-	-	-	-	-	-	-	ND (1.0) 43.8	
nc	mg/kg	110,000	-	-	-	-	-	-		-	-	417	
eneral Chemistry													
olids, Percent	%		60.4	88.2	96	95.7	85.6	78.4	95.1	89.4	59.8	-	87.6
I results in mg/kg unless othe		N.IDEP Non-Poo	idential Soil Remed	iation Standard							mill	igrams per kilogram Estimated Value Not Sampled Not Detected	mg/kg J NS ND
S = Sample-specific Standard equirements for Site Remediar = Non-residential EPH Soil Re	(EPH Categ tion)	ory 2 contingency	analyses run for fu	el oils and crude oi		ble 2-1 of NJAC 7	:26E Technical				Compo	Not Analyzed thod Detection Limit ound Found in Blank	NA () B
										Health based		soil saturation limit esult is from 2nd run	a b

Client Sample ID:			S-1 2RTF-SS-2		2RTF-SS-4																						SS-27 2RTF-SS-28											S-39 2RTF-SS			
onent dample ib.	NJ Non-Resident Direct Contact Se	iai	0) (2.5-3.0)			(10.0-10.5)					(11.0-11.5)																6.5) (10.0-10.5)							(10.5-11.0) (5.5		-11.5) (8.5-9.0				, , , , , , , , , , , , , , , , , , , ,	,
Lab Sample ID: Date Sampled:	Direct Contact Si	JB75362 8/28/201	2-2 JB75362-4 14 8/28/2014	JB75362-1 8/28/2014	JB75546-1 9/2/2014	JB75365-1 8/29/2014	JB75365-3 8/29/2014	JB75365-2 8/29/2014	JB75362-3 8/28/2014	JB75546-2 9/2/2014	JB75728-1 9/5/2014	JB75636-3/3R 9/4/2014	JB75728-2 JB75 9/5/2014 9/4/	636-4 JB755	014 JB7554	16-3 JB7563	36-6 JB75636-5	JB76153 9/9/201	-3 JB76153-4 4 9/9/2014	JB76153-2 9/9/2014	JB75728-3/3R JB 9/5/2014	75534-1/1R JB 9/3/2014 9	375534-2 JB755 1/3/2014 9/2/20	16-5 JB755	546-6 JB761 2014 9/9/20	53-1 JB75983- 014 9/8/201	3-4/4R JB75983-3/3R 014 9/8/2014	JB75983-6 9/8/2014	JB75636-1 9/4/2014	JB75636-2 9/4/2014	JB75365-4 8/29/2014	JB75728-4 JB75	75983-7/7R J	9/8/2014 9/8/	3-2/2R JB759	83-5/5R JB76467 2014 9/11/201	-1 JB76125	i-1/1R JB76125	-2 JB7617	25-3 JB76125-4/4R JB76125-5 014 9/10/2014 9/10/2014 II Soil Soil	JB76125-6 JB76467-2 9/10/2014 9/11/201
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil S	oil Sc	il Soi	l Soil	il Soil	Soil	Soil	Soil	Soil	Soil	Soil Soi	l Sc	oil Soi	il Soil	il Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil S	di S	oil Soil	Sol	Soil	Sol	Soll Soll	Soil Soil
Volatile Organic Compounds																																									
Benzene m	g/kg 5		-		-			-	-	-	-	0.093								-	ND (0.011)	0.0158 J				0.031	31 0.0223 J	-	-		-	- ND	0 (0.0094)	ND (0.012) ND (0	0095) ND	0.011) -	ND (0.00	0020) -		ND (0.00026) -	- ND (0.012
Bromochloromethane m	g/kg -		-	-	-	-	-	-	-	-	-	ND (0.031)	-		-	-	-	-	-	-	ND (0.017) N	ND (0.021)				ND (0.0	017) ND (0.016)		-		-	- NE	D (0.015)	ND (0.019) ND (0	.015) ND	0.017) -	ND (0.00	0031) -	-	ND (0.00041) -	- ND (0.018
Bromodichloromethane m	g/kg 3		-							-		ND (0.023)				-	-	-	-		ND (0.013) N	ND (0.015)				ND (0.0	.013) ND (0.012)			-		- NE	D (0.011)	ND (0.014) ND (0	.011) ND	0.012) -	ND (0.00	0023) -	-	ND (0.00030) -	- ND (0.013
Bromoform m	g/kg 280	-	-	-	-	-	-		-	-	-	ND (0.020)				-		-		-	ND (0.011)	ND (0.014)		-		ND (0.0	011) ND (0.011)	-	-	-	-	- ND	0.0094)	ND (0.012) ND (0	0095) ND	0.011) -	ND (0.00	0020) -	-	ND (0.00026) -	- ND (0.012
Bromomethane m	g/kg 59	-	-	-	-	-	-		-	-		ND (0.033)				-		-	-	-	ND (0.018)	ND (0.022)				ND (0.0	018) ND (0.017)	-		-	-	- NE	D (0.015)	ND (0.020) ND (0	.016) ND	0.018) -	ND (0.00	0032) -	-	ND (0.00043) -	- ND (0.019
2-Butanone (MEK) m	g/kg 44,000	-	-		-	-	-			-	-	ND (0.21)	-			-		-	-	-	ND (0.12)	ND (0.14)				ND (0.1	.12) ND (0.11)	-		-	-	- NE	D (0.099)	ND (0.13) ND (0.10) ND	(0.11) -	ND (0.00	021) -	-	ND (0.0028) -	- ND (0.12
Carbon disulfide m	g/kg 110,000	-	-	-	-	-	-	-	-	-	-	0.0488 J	-				-	-	-	-	ND (0.018)	ND (0.022)				ND (0.0	018) ND (0.017)	-	-	-	-	- NE	D (0.015)	ND (0.020) ND (0	.016) ND	0.018) -	0.0005	i9 J -	-	ND (0.00043) -	- ND (0.019
Carbon tetrachloride m	ig/kg 2	-	-	-	-	-	-	-	-	-	-	ND (0.016)	-		-	-	-	-	-	-	ND (0.0088)			-			0087) ND (0.0085)	-	-	-	-			ND (0.0098) ND (0			ND (0.00		-	ND (0.00021) -	- ND (0.009
Chlorobenzene m	g/kg 7,400	-	-	-	-	-	-	-	-	-	-	ND (0.016)	-		-	-	-	-	-	-	ND (0.0086)	ND (0.011)			-	ND (0.00	0085) ND (0.0083)	-	-	-	-	- ND	0 (0.0074)	0.937 0.5	18 0.	17 J -	ND (0.00	0015) -	-	ND (0.00020) -	- ND (0.009
	g/kg 1,100	-	-	-	-	-	-	-	-	-	-	ND (0.032)	-		-	-	-	-	-	-	,	ND (0.022)					.018) ND (0.017)	-	-	-	-		D (0.015)	(, , ,	.015) ND	,	ND (0.00	,		ND (0.00042) -	- ND (0.019
	g/kg 2	-	-	-	-	-	-	-	-	-	-	ND (0.015)	-		-	-	-	-	-	-	ND (0.0084)						0083) ND (0.0080)	-	-	-	-				0072) ND (ND (0.00			ND (0.00020) -	- ND (0.008
	g/kg 12	-	-	-	-	-	-	-	-	-	-	ND (0.034)	-		-	-	-	-	-	-	ND (0.019) N						019) ND (0.018)	-	-	-	-			ND (0.021) ND (0			ND (0.00			ND (0.00045) -	- ND (0.020
	g/kg -	-	-	-	-	-	-	-	-	-	-	0.0513 J	-		-	-	-	-		-		0.0602 J					022) ND (0.021)	-	-	-	-		D (0.019)		.019) ND		ND (0.00			ND (0.00052) -	- ND (0.023
	g/kg 0.2	-	-	-	-	-	-			-	•	ND (0.044)	-			-	-	-	-	-		4D (0.030)					024) ND (0.023)	-	-	-	•		D (0.021)			0.023) -	ND (0.00	-		ND (0.00057) -	- ND (0.025
	g/kg 8 g/kg 0.04	-	-	-	-	-	-	-	-	-	-	ND (0.020) ND (0.020)	-		-	-	-	-	-	-	ND (0.011) ND (0.011) ND (0.011)			-			.011) ND (0.010) .011) ND (0.011)	-	-	-	-			ND (0.012) ND (0 ND (0.013) ND (0			ND (0.00 ND (0.00			ND (0.00026) - ND (0.00027) -	- ND (0.011
cis-1 2-Dichloroethene m	g/kg 0.04		-	-	-	-	-			-	-	ND (0.020)	-			-	-	-	-	-		ND (0.014)		_			.011) ND (0.011)	-					D (0.0096)		.014) ND		ND (0.00		+	ND (0.00027) -	- ND (0.012
	g/kg 560 g/kg 720	_	-	-	-	-	-	-	-	-	-	ND (0.029)	-		-	-	-	-	-	-	ND (0.016) ND (0.012)	(0.020)					.012) ND (0.013)	-	-	-	-		,		.010) ND	,	ND (0.00	,	+	ND (0.00038) -	- ND (0.017
	g/kg 720 ig/kg 5	_	-	-	-	-	-	-	-	-	-	ND (0.021)	-		-	-	-	-	-	-	ND (0.012) P	,					.012) ND (0.011)	-	-	-	-			ND (0.013) ND (0.012) ND (0.012)			ND (0.00		+	ND (0.00028) -	- ND (0.012
cis-1,3-Dichloropropene m	g/kg 3			-				-		-		ND (0.014)					_		_	-	ND (0.011) N	,,	-				0078) ND (0.0076)	-	-	-	-		,	ND (0.012) ND (0	,	,	ND (0.00	,	+	ND (0.00023)	- ND (0.008
	g/kg 7		- :	-				-	-			ND (0.019)									ND (0.010) N	- (0.0000)	-				.010) ND (0.010)		-				(0.000.)	(0.0000)	0090) ND	,	ND (0.00		+	ND (0.00015) -	- ND (0.000
	g/kg 110,000											0.0293.1			-						ND (0.012)					0.119				-				0.461 ND (0			0.0005	-	+	ND (0.00028) -	- ND (0.013
	g/kg -		-									ND (0.061)									ND (0.034) N	ND (0.041)		-		ND (0.0						- NE			.029) ND		ND (0.00	0060) -	+	ND (0.00080) -	- ND (0.035
	g/kg -		-									ND (0.18)										ND (0.12)		-			.098) ND (0.095)						D (0.084)		.085) ND		ND (0.00		+	ND (0.0023) -	- ND (0.10
Isopropylbenzene m	g/kg -	-	-	-	-	-	-	-	-	-	-	0.0707 J	-			-	-			-	0.0608 J	1.19		-		0.242	2 J 0.298 J	-	-	-	-	- ND	0.0096)	0.246 J 0.02	91 J 0.:	17 J -	0.0021	1 J -		ND (0.00027) -	- 0.0592 J
Methyl Acetate m	g/kg -		-		-	-	-	-	-	-	-	ND (0.12)	-		-	-	-	-	-	-	ND (0.068)	0.104 J				ND (0.0	068) ND (0.065)		-	-	-	- NE	D (0.058)	ND (0.076) ND (0	.059) ND	0.066) -	ND (0.00	012) -	-	ND (0.0016) -	- ND (0.072
Methylcyclohexane m	g/kg -		-	-	-	-	-	-	-	-	-	0.0842 J	-		-	-	-	-	-	-	ND (0.013)	1.04				ND (0.0	013) 3.08		-		-	- NE	D (0.011)	1.17 0.08	42 J ND	0.013) -	0.0020	0 J -	-	ND (0.00032) -	- ND (0.014
Methyl Tert Butyl Ether m	g/kg 320	-	-	-	-	-	-		-	-	-	ND (0.019)				-		-		-	ND (0.010)	ND (0.013)				ND (0.0	010) ND (0.0099)	-	-	-	-	- ND	0.0088)	ND (0.011) ND (0	0089) ND	0.010) -	ND (0.00	018) -	-	0.0064 -	- ND (0.011
4-Methyl-2-pentanone(MIBK) m	g/kg -	-	-	-	-	-	-	-	-	-	-	ND (0.060)			-	-	-	-	-	-	ND (0.033)	ND (0.041)			-	ND (0.0	033) ND (0.032)	-	-	-	-	- NE	D (0.028)	ND (0.037) ND (0	.029) ND	0.032) -	ND (0.00	0060) -	-	ND (0.00079) -	- ND (0.035
Methylene chloride m	g/kg 97	-	-		-		-			-		ND (0.17)	-			-	-	-	-		ND (0.092)	ND (0.11)				ND (0.0	092) ND (0.089)	-		-		- NE	D (0.079)	ND (0.10) ND (0	.080) ND	0.090) -	ND (0.00	017) -	-	ND (0.0022) -	- ND (0.097
Styrene m	g/kg 260	-	-	-	-	-	-	-	-	-	-	ND (0.020)	-		-	-	-	-	-	-	ND (0.011)	ND (0.014)				ND (0.0	011) ND (0.011)	-	-	-	-	- ND	0 (0.0095)	ND (0.012) ND (0	0096) ND	0.011) -	ND (0.00	0020) -	-	ND (0.00027) -	- ND (0.012
1,1,2,2-Tetrachloroethane m	ig/kg 3	-	-	-	-	-	-	-	-	-	-	ND (0.025)	-		-	-	-	-	-	-	ND (0.013)	ND (0.017)			-	ND (0.0	013) ND (0.013)	-	-	-	-	- NE	D (0.012)	ND (0.015) ND (0	.012) ND	0.013) -	ND (0.00	0024) -	-	ND (0.00032) -	- ND (0.014
Tetrachloroethene m	g/kg 5	-	-	-	-	-	-	-	-	-	-	ND (0.020)	-		-	-	-	-	-	-	ND (0.011)	ND (0.013)				ND (0.0	011) ND (0.010)	-	-	-	-	- ND	0.0093)	ND (0.012) ND (0	0094) ND	0.011) -	0.0005	i9 J -	-	ND (0.00026) -	- ND (0.011
	g/kg 91,000	-	-	-	-	-	-	-	-	-	-	ND (0.026)	-		-	-	-	-	-	-	ND (0.014)					0.0359		-	-	-	-				.012) ND		0.001			ND (0.00034) -	- ND (0.015
1,2,3-Trichlorobenzene m	g/kg -	-	-	-	-	-	-	-	-	-	-	ND (0.023)	-		-	-	-	-	-	-	ND (0.013)	,					013) ND (0.012)	-	-	-	-		,	ND (0.014) ND (0	- /	,	ND (0.00	,		ND (0.00030) -	- ND (0.013
1,2,4-Trichlorobenzene m	g/kg 820	-	-	-	-	-	-	-	-	-	-	ND (0.020)	-		-	-	-	-	-	-	ND (0.011)						011) ND (0.011)	-	-	-	-			ND (0.012) ND (0			ND (0.00			ND (0.00027) -	- ND (0.012
1,1,1-Trichloroethane m	g/kg 4,200	-	-							-		ND (0.016)				-	-	-	-		ND (0.0087)					112 (0101	0086) ND (0.0083)	-		-			(0.00)	ND (0.0097) ND (0		,	ND (0.00	,		ND (0.00021) -	- ND (0.009
1,1,2-Trichloroethane m	g/kg 6	-	-	-	-	-	-	-	-	-	-	ND (0.025)	-		-	-	-	-	-	-		ND (0.017)			-		014) ND (0.013)	-	-	-	-				.012) ND		ND (0.00			ND (0.00033) -	- ND (0.014
	g/kg 20	-	-	-	-	-	-	<u> </u>	-	-	-	ND (0.023)	-		-	-	-	-	-	-	ND (0.012)						012) ND (0.012)	-	-	-	-			ND (0.014) ND (0			ND (0.00	-	\perp	ND (0.00029) -	- ND (0.013
Trichlorofluoromethane m	g/kg 340,000	-	-	-	-	-	-	-	-	-	-	ND (0.019)	-		-	-	-	-	-	-		VD (0.013)			-		011) ND (0.010)	-	-	-	-		0 (0.0090)	,	0091) ND	,	ND (0.00			ND (0.00025) -	- ND (0.011
	g/kg 2		-	-	-	-	-	-	-	-	-	ND (0.042)	-		-	-	-	-	-	-	ND (0.023) N				-		023) ND (0.022)	-	-	-	-		D (0.020)		.020) ND		ND (0.00	-		ND (0.00055) -	- ND (0.024
	g/kg 170,000	-	-	-	-	-	-	-	-	-	-	ND (0.046)	-		-	-	-	-	-	-	ND (0.025)	,, ,,			-	0.163		-	-	-	-			0.182 ND (0	- /	,	0.008			0.0011 J -	- ND (0.027
	g/kg 170,000 g/kg 170,000	-	-	-	-	-	-	-	-	-	-	ND (0.024) 0.0356 J	-		-	-	-	-	-	-	ND (0.013) ND (0.013)	ND (0.016)			-	0.0546		-	-	-	-		D (0.011) D (0.011)		.012) ND	0.013) -	0.006			0.0013 J - 0.0024 -	- 0.0178 J
	g/kg 170,000	-	-	-	-	-	1 -	-	-	-	-		-		-	-	-	_	-	-	,	, , , ,						-	-	-	-				- /	,			+	0.0024 -	- 0.0178 J
Total TIC, Volatile m Total Alkanes m	g/kg -	-	-	-	-	-	1 -	-	-	-	-	80.4 J (15)	-		-	-	-	_	-	-	71.3 J	204.6 J				229 J		-	-	-	-		75.3 J 0			.4 J -	1.406 0.182		+	0.0511 J -	- 65.3 J
rotal Aikanes m	g/kg -		-				1 -	1 -	1 -	<u> </u>		U	-								U	J	-			0	17.9 J	- 1	-	-	-	•	U	o l	, 10	.73	U.182				- 3.7 J

																		ı		ı																			
Client Sample ID:	NJ Non-Resident	(1.5-2.0)	(2.5-3.0) (2.5-3.0) (2.5-3.0)	(10.0-10.5)	(11.0-11.5)	(10.0-10.5)	(10.5-11.0)	(1.5-2.0)	(11.0-11.5) (7.5-8.0	(7.0-7.5)	(10.0-10.5)	(13.5-	14.0) (8.5-9.0)	(4.5-5.0)	(5.5-6.0)	(9.0-9.5)	(8.0-8.5)	(5.5-6.0)	(9.5-10.0)	(6.0-6.5) (4.5-5	5.0) (2.5-3	3.0) (2.0-2.5	(6.0-6.5)	(10.0-	10.5) (7.5-8.0)	(7.5-8.0)	(6.5-7.0)	(8.5-9.0)	(4.0-4.5)	6.0-6.5) (1).5-11.0) (5.5-6.	0) (11.0-	11.5) (8.5-9	.0) (6.5-7.0	(8.0-8.5)	(6.5-7.0) (7.0-7	7.5) (5.0	7-SS-43 2RTF-SS-44 2RTF-SS-45 (8.5-9.0)
Lab Sample ID: Date Sampled: Matrix:	Direct Contact S	JB75362-2 8/28/2014 Soil	3/28/2014 3/28/2014 8/28/201 Soil Soil	-1 JB75546-1 4 9/2/2014 Soil	JB75365-1 8/29/2014 Soil	JB75365-3 8/29/2014 Soil	JB75365-2 8/29/2014 Soil	JB75362-3 8/28/2014 Soil	JB75546-2 9/2/2014 Soil	JB75728-1 JB75636-3 9/5/2014 9/4/2014 Soil Soil	/3R JB75728-2 9/5/2014 Soil	JB75636-4 JE 9/4/2014 9 Soil	75546-4 JB755 2/2014 9/2/2 Soil So	346-3 JB75636-6 014 9/4/2014 II Soil	JB75636-5 9/4/2014 Soil	JB76153-3 9/9/2014 Soil	JB76153-4 9/9/2014 Soil	JB76153-2 9/9/2014 Soil	JB75728-3/3R 9/5/2014 Soil	JB75534-1/1R 9/3/2014 Soil	R JB75534-2 JB7554 9/3/2014 9/2/20 Soll Soli	46-5 JB755- 014 9/2/20 II Soi	il Soil	-1 JB75983-4/4F 4 9/8/2014 Soil	4R JB7598: 9/8/2 So	3-3/3R JB75983-6 014 9/8/2014 ii Soil	JB75636-1 9/4/2014 Soil	JB75636-2 9/4/2014 Soil	JB75365-4 8/29/2014 Soil	JB75728-4 JB 9/5/2014 Soil	5983-7/7R JB7 /8/2014 9 Soil	5983-1/1R JB75983- 18/2014 9/8/201 Soil Soil	2/2R JB7598 4 9/8/2 Sc	3-5/5R JB7646 014 9/11/2 il Soi	67-1 JB76125-1 014 9/10/201 I Soil	1R JB76125-2 9/10/2014 Soil	JB76125-3 JB7612: 9/10/2014 9/10/2 Soil So	5-4/4R JB76 2014 9/10 il S	3125-5 JB76125-6 JB76467-2/2A 1/2014 9/10/2014 9/11/2014 Ioli Soil Soil
Semi-Volatile Organic Compound																																							
Acenaphthene m	ng/kg 37,000	-		-	-	-	-	-	-	- ND (0.01	5) -	-		-	-	-	-	-	0.704	2.14		-	-	1.18	1.4	4 -	-	-	-			0.427 0.122			0.0952	-	- 0.077	71 J	1.15
	ng/kg 300,000 ng/kg 30,000	-		-		-	-	-	-	- 0.0383 - 0.0519		-		-	-	-		-	ND (0.012) 0.177	ND (0.011) ND (0.012)		-	-	ND (0.012) ND (0.013)	,		-	-	-		(0.0)	0 (0.013) ND (0.0 0.543 ND (0.0	, (0	,	ND (0.01 ND (0.01	· .	- 0.086		ND (0.012) - ND (0.013)
	ng/kg 2,200				-	-	-	-	-	- ND (0.05		-		-	-	-		-	ND (0.037)			-	-	ND (0.036)			-	-	-			0.040) ND (0.00	_		ND (0.04		- ND (0.		- ND (0.013)
	ng/kg 2	-		-	-	-	-	-	-	- 0.0839		-			-	-	-	-	ND (0.012)	0.0180 J		-	-	0.0217 J	_		-	-	-				12) ND (0	- /	0.0355		- 0.34		0.0443
	ng/kg - ng/kg 2,100	-		-	-	-	-	-	-	- ND (0.05		-		-	-	-		-	ND (0.037) ND (0.059)	ND (0.035) ND (0.056)		-	-	ND (0.036) ND (0.058)	_		-	-	-			0 (0.040) ND (0.00 0 (0.065) ND (0.00	36) ND (0 59) ND (0		ND (0.04 ND (0.06		- ND (0		ND (0.038) ND (0.062)
	ng/kg 0.2	-		-	-	-	-	-	-	- 0.0761	-	-		-	-	-	-	-	ND (0.011)	ND (0.011)		-	-	ND (0.011)) ND (0.	011) -	-	-	-				11) ND (0		ND (0.01		- 0.30		0.0492
	ng/kg 14,000 ng/kg 2	-		-	-	-	-	-	-	- ND (0.08		-		-	-	-	-	-	ND (0.062) ND (0.012)			-	-	ND (0.060) ND (0.012)	_		-	-	-			0 (0.068) ND (0.06 0.0428 ND (0.07			ND (0.07 0.0201		- ND (0		ND (0.064) 0.0305 J
, ,	ng/kg 1,400			-	-	-	-	-	-	- ND (0.06		-		-	-	-	-	-	ND (0.045)			-	-	ND (0.044)			-	-	-		,	0 (0.049) ND (0.049)	, .	. ,	ND (0.05		- ND (0		- ND (0.047)
	ng/kg 30,000	-		-	-	-	-	-	-	- 0.0673		-		-	-	-	-	-	,	ND (0.013)		-	-	ND (0.013)			-	-	-				14) ND (0		ND (0.01	-	- 0.19		ND (0.014)
	ng/kg 23 ng/kg 68			-	-	-	-	-	-	- 0.0421 - ND (0.06		-		-	-	-		-	ND (0.014) ND (0.045)	,		-	-	ND (0.014) ND (0.044)		,	-	-	-		(0177 J ND (0.0 0 (0.049) ND (0.0	, ,	,	ND (0.01	· .	- 0.09		ND (0.014) - ND (0.047)
	ng/kg 230	-		-	-	-	-	-	-	- 0.122	-	-		-	-	-	-	-	ND (0.012)	0.0274 J		-	-	0.0240 J	_		-	-	-				12) ND (0		0.0374		- 0.4	11	0.0974
	ng/kg 0.2 ng/kg 24,000	-		-	-	-	-	-		- ND (0.01 - 0.149	-	-		-	-	-	-	-	ND (0.013)	ND (0.012) 0.128		-	-	ND (0.012) ND (0.016)	,		-	-	-			0 (0.014) ND (0.0 0.413 0.046	, ,	. ,	ND (0.01 0.0377	· .	- 0.049 - 0.66		ND (0.013) 0.128
	ng/kg 24,000 ng/kg 3,400	-		-	-	-	-	-	-	- 0.149 - ND (0.05		-		-	-	-	-	-	0.0339 J ND (0.042)	0.128 ND (0.040)		-	-	ND (0.016) ND (0.041)			-	-	-			0.413 0.046 0 (0.046) ND (0.04			0.0377 ND (0.04		- 0.68		0.128 - ND (0.044)
Fluorene m	ng/kg 24,000	-		-	-	-	-	-	-	- 0.0233		-		-	-	-	-	-	ND (0.012)	3.11		-	-	1.82	2.7		-	-	-	-		1.48 0.334	_		0.338		- 0.061		4.89
	ng/kg - ng/kg 2	-		-	-	-	-	-	-	- ND (0.06 - 0.067	4) -	-		-	-	-	-	-	ND (0.047) ND (0.013)	ND (0.045) ND (0.012)		-	-	ND (0.046) ND (0.012)	_		-	-	-			0 (0.051) ND (0.00 0 (0.014) ND (0.00			ND (0.05		- ND (0		- ND (0.049)
	ng/kg -			-	-	-	-	-	-	- ND (0.05	4) -	-		-	-	-	-	-	ND (0.039)			-	-	ND (0.038)			-	-	-		(0.0.2)	0 (0.043) ND (0.03	(0	,	ND (0.04		- ND (0		- ND (0.041)
	ng/kg 17	-		-	-	-	-	-	-	- 0.081	-	-			-	-	-	-	ND (0.010))	-	-	4.93	_		-	-	-			0 (0.011) ND (0.0			0.112		- 0.053		- ND (0.010)
	ng/kg - ng/kg 10	-		-	-	-	-	-		- ND (0.08	,	-		-	-			-	ND (0.062) ND (0.063)	,		-	-	ND (0.061) ND (0.061)			-	-	-		,	0 (0.068) ND (0.06 0 (0.069) ND (0.06	, .	,	ND (0.07 ND (0.07		- ND (0		ND (0.065) - ND (0.066)
	ng/kg 300,000	-		-	-	-	-	-	-	- 0.0359		-		-	-	-	-	-	0.521	8.79		-	-	6.14	_		-	-	-			3.24 0.0779	_		0.12		- 0.1		- 6.03
	ng/kg 18,000	-		-	-	-	-	-	-	- 0.193	-	-		-	-	-	-	-	0.162	0.262		-	-	0.28	_		-	-	-			0.458 0.109	_		0.0608	-	- 0.70		0.107
	ng/kg 210,000 ng/kg -			-	-	-	-	-	-	- ND (0.05		-		-	-	-		-	ND (0.039) ND (0.038)			-		ND (0.038)			-	-	-			0 (0.042) ND (0.00 0 (0.041) ND (0.00	_		ND (0.04 ND (0.04		- ND (0		ND (0.040) - ND (0.039)
	ng/kg 68,000	-		-	-	-	-	-	-	- ND (0.05		-		-	-	-	-	-	ND (0.043)			-	-	ND (0.042)) ND (0.	.041) -	-	-	-			(0.047) ND (0.0			ND (0.04		- ND (0		- ND (0.044)
	ng/kg 74	-		-	-	-	-	-	-	- ND (0.04		-		-	-	-	-	-				-	-	ND (0.034)	_		-	-	-			(0.038) ND (0.03 (0.0071) ND (0.00	_		ND (0.03		- ND (0.		ND (0.036)
	ng/kg 5 ng/kg 2,400			-	-	-		-	-	- ND (0.008		-		-	-			-	ND (0.0065) ND (0.0073)	(,	,	-	-	ND (0.0063) ND (0.0071)	, .		-		-		(0.00002)	(0.0071) ND (0.00 (0.0079) ND (0.00	.,	,	ND (0.00		- ND (0.	. ,	- ND (0.0067) - ND (0.0076)
	ng/kg -	-		-	-	-	-	-	-	- ND (0.01		-		-	-	-	-	-	ND (0.013)			-	-	ND (0.013)	_		-	-	-			0 (0.015) ND (0.0			ND (0.01		- ND (0.		- ND (0.014)
	ng/kg 14,000 ng/kg 34,000	-		-	-	-	-	-	-	- ND (0.02	,	-		-	-	-	-	-	ND (0.021) ND (0.0043)	,		-	-	ND (0.021) 0.987			-	-	-			(0.0047) ND (0.00 (0.0047) ND (0.00	_		ND (0.02 ND (0.00		- ND (0.	,	ND (0.022) - ND (0.0044)
	ng/kg 68,000				-	-	-	-	-	- ND (0.01		-		-	-	-	-	-	ND (0.0045))	-	-	ND (0.0083)	_			-	-			(0.0047) ND (0.00 (0.0092) ND (0.00	_		ND (0.00		- ND (0.		- ND (0.0088)
	ng/kg -	-		-	-	-	-	-	-	- ND (0.01	-	-		-	-	-	-	-	ND (0.011)	,		-	-	ND (0.011)		. ,	-	-	-			0 (0.012) ND (0.0	, ,	. ,	ND (0.01		- ND (0.		- ND (0.012)
	ng/kg - ng/kg 96	-		-	-	-		-	-	- ND (0.01		-		-	-	-		-	ND (0.012) ND (0.017)	ND (0.011)		-	-	ND (0.012)	_		-		-			0 (0.013) ND (0.0 0 (0.019) ND (0.0	_		ND (0.01 ND (0.01		- ND (0.		ND (0.012) - ND (0.018)
	ng/kg 340,000	-		-	-	-	-	-	-	- ND (0.01	,	-		-	-	-	-	-	ND (0.012)			-	-	ND (0.011)			-	-	-			0 (0.013) ND (0.0			ND (0.01		- ND (0.		- ND (0.012)
	ng/kg -	-		-	-	-	-	-	-	- ND (0.02		-		-	-	-	-	-		ND (0.014)		-	-	ND (0.015)			-	-	-			0 (0.016) ND (0.0			ND (0.01		- ND (0.		ND (0.015)
	ng/kg 2 ng/kg 67			-	-	-	-	-	-	- ND (0.01	.,	-		-	-	-	-	-	ND (0.011) ND (0.011)	ND (0.011) ND (0.010)		-		ND (0.011) ND (0.011)	,		-	-	-			0 (0.012) ND (0.01 0 (0.012) ND (0.01		,	ND (0.01	_	- ND (0.		ND (0.012) - ND (0.011)
4-Chlorophenyl phenyl ether m	ng/kg -	-		-	-	-	-	-	-	- ND (0.01		-		-	-	-	-	-	ND (0.011)	ND (0.011)		-	-	ND (0.011)	_		-	-	-	- N	O (0.011) NI	0 (0.012) ND (0.0	11) ND (0	.010) -	ND (0.01		- ND (0.		- ND (0.012)
	ng/kg 3	-		-	-	-	-	-	-	- ND (0.02 - ND (0.01	-	-		-	-	-	-	-	ND (0.016) ND (0.014)	,		-	-	ND (0.016) ND (0.014)			-	-	-		(* * *)	0 (0.018) ND (0.0 0 (0.015) ND (0.0	-7	,	ND (0.01		- ND (0.	. ,	ND (0.017) - ND (0.015)
	ng/kg 3 ng/kg 4			-		-	-	-		- ND (0.01		-		-	-	-	-	-	ND (0.014) ND (0.0093))		-	ND (0.014)	_		-	-	-			0 (0.015) ND (0.00 0 (0.010) ND (0.00			ND (0.01		- ND (0.		- ND (0.015)
1,4-Dioxane m	ng/kg -	-		-		-	-	-	-	- ND (0.03	-	-		-	-	-		-	ND (0.024)	,		-	-	ND (0.023)			-	-	-		,	0 (0.026) ND (0.02	, .	. ,	ND (0.02		- ND (0.	,	- ND (0.025)
	ng/kg - ng/kg 68,000	-		-	-	-	-	-		- ND (0.01		-		-	-	-	-	-	ND (0.011) ND (0.0082)				-	1.01 ND (0.0080)	1.2) ND (0.0		-	-	-			0.622 0.093 (0.0089) 0.105			ND (0.01 0.234 E		- ND (0.		ND (0.011) - ND (0.0085)
	ng/kg 27,000	-		-		-	-	-		- ND (0.02		-		-	-	-		-	ND (0.018)			-	-	ND (0.018)			-	-	-			0 (0.020) ND (0.0			ND (0.02		- ND (0.		- ND (0.019)
	ng/kg 550,000	-		-	-	-	-	-	-	- ND (0.01		-		-	-	-	-	-	ND (0.013)			-	-	ND (0.012)			-	-	-			0 (0.014) ND (0.0			ND (0.01		- ND (0.		- ND (0.013)
	ng/kg - ng/kg 140	-		-	-	-	-	-		- ND (0.01 - 0.169	,	-		-	-	-	-	-	ND (0.013) 0.0601 J	ND (0.012) 0.0677 J		-	-	ND (0.013) ND (0.032)	,		-	-	-			0 (0.014) ND (0.00 0 (0.035) ND (0.00	_		ND (0.01	,	- ND (0.	,	ND (0.013) 0.0641 J
Hexachlorobenzene m	ng/kg 1	-			-	-	-	-	-	- ND (0.01	6) -						-	-	ND (0.012)	ND (0.011)		-	-	ND (0.012)) ND (0.	012) -	-	-	-	- N	O (0.011) NI	0 (0.013) ND (0.0	12) ND (0	.011) -	ND (0.01) -	- ND (0.	.031)	- ND (0.013)
	ng/kg 25 ng/kg 110	-		-	-	-	-	-		- ND (0.01 - ND (0.05		-		-	-	-	-	-	ND (0.010) ND (0.038)			-	-	ND (0.010) ND (0.037)			-	-	-			0 (0.011) ND (0.00 0 (0.041) ND (0.00			ND (0.01 ND (0.04		- ND (0.		ND (0.011) ND (0.039)
	110 1g/kg 140	-		-		-	-	-	-	- ND (0.05		-		-	-	-		-	ND (0.038) ND (0.010)				-	ND (0.037)	_		-	-	-			0 (0.041) ND (0.03 0 (0.011) ND (0.03	_		ND (0.04		- ND (0.		ND (0.039)
Isophorone	ng/kg 2,000	-		-		-	-	-	-	- ND (0.01	,	-		-	-	-		-	ND (0.0099)	ND (0.0094))	-	-	ND (0.0097)) ND (0.0	0095) -	-	-	-	- N	(0.0095) NI	0 (0.011) ND (0.00	98) ND (0.	0092) -	ND (0.01) -	- ND (0.		ND (0.010)
	ng/kg 2,400 ng/kg 23,000	-		-	-	-	-	-		- ND (0.02 - ND (0.02		-		-	-	-	-	-	ND (0.021) ND (0.016)			-	-	34 ND (0.016)	_		-	-	-			8.32 0.349 0 (0.018) ND (0.0	_		ND (0.02 ND (0.01		- ND (0.		ND (0.021) - ND (0.017)
	ng/kg -						-	-		- ND (0.02		-			-	-	-		ND (0.015)				-	ND (0.014)				-	-			0 (0.016) ND (0.0			ND (0.01		- ND (0.		- ND (0.017)
4-Nitroaniline m	ng/kg -	-		-	-	-	-	-	-	- ND (0.02		-		-	-	-	-	-	ND (0.014)			-	-	ND (0.014)	_		-	-	-			0 (0.016) ND (0.0	_		ND (0.01		- ND (0.		- ND (0.015)
	ng/kg 340 ng/kg 0.3	-		-	-	-	-	-	-	- ND (0.01		-		-	-	-	-		ND (0.011) ND (0.0090)			-	-	ND (0.010) ND (0.0088)			-	-	-			(0.0098) ND (0.00			ND (0.01		- ND (0.		- ND (0.011) - ND (0.0094)
N-Nitrosodiphenylamine m	ng/kg 390	-		-		-	-	-	-	- ND (0.03	0) -			-	-	÷			ND (0.022)	ND (0.021)		-	-	ND (0.021)) ND (0.	021) -	-	-	-	- N	O (0.021) NI	0 (0.024) ND (0.02	22) ND (0	.020) -	ND (0.02) -	- ND (0.	.057)	- ND (0.023)
	ng/kg -	-		-	-	-	-	-	-	- ND (0.01		-		-	-	-	-	-	ND (0.011)			-	-	ND (0.011)	_		-	-	-			0 (0.012) ND (0.0			ND (0.01		- ND (0.	,	ND (0.012) 55.7 J
	ng/kg -	-		-	-	-	-	-	-	- 11.77 J (1		-		-	-	-	-	-	42.6 J 21.8 J			-	-	65.4 J 21.4 J	_		-	-	-			52.3 J 25.6 s 29 J 24.5 s	_		54.1 J 65.6 J			3 J 2 J	55.7 J - 13.5 J
	-	_	+ + + + + + + + + + + + + + + + + + + +		•						-				-									-	-						1	-			-	-			+

Client Sample I	n.		2RTF	F-SS-1 2RT	TF-SS-2 2I	RTF-SS-3	2RTF-SS-4	2RTF-SS-5	2RTF-SS-6	2RTF-SS-7	2RTF-SS-8	8 2RTF-SS	S-9 2RTF-S	S-10 2RTF-	-SS-11 2R	TF-SS-12 2	RTF-SS-13	RTF-SS-14	2RTF-SS-15	2RTF-SS-1	6 2RTF-SS-	7 2RTF-SS	-18 2RTF-	-SS-19 2RTI	F-SS-20 2R	TF-SS-21 2	RTF-SS-22 2	RTF-SS-23	2RTF-SS-24	2RTF-SS-25	2RTF-SS-26	2RTF-SS-27	2RTF-SS-28	2RTF-SS-29	2RTF-SS-30	2RTF-SS-31	1 2RTF-SS-32	2 2RTF-SS-3	3 2RTF-SS-	34 2RTF-SS-3	15 2RTF-SS-3	6 2RTF-SS-3	7 2RTF-SS		3-39 2RTF-SS			-SS-42 2RTF-S			
Client Sample		NJ Non-Reside	ential (1.5	5-2.0) (2.	.5-3.0)	(2.5-3.0)	(2.5-3.0)	(10.0-10.5)	(11.0-11.5)	(10.0-10.5)	(10.5-11.0)	(1.5-2.0	.0) (11.0-1	1.5) (7.5-	i-8.0) (7.0-7.5)	(10.0-10.5)	(7.0-7.5)	(13.5-14.0)	(8.5-9.0)	(4.5-5.0)	(5.5-6.	(9.0	-9.5) (8.	0-8.5) (5.5-6.0)	(9.5-10.0)	(6.0-6.5)	(4.5-5.0)	(2.5-3.0)	(2.0-2.5)	(6.0-6.5)	(10.0-10.5)	(7.5-8.0)	(7.5-8.0)	(6.5-7.0)	(8.5-9.0)	(4.0-4.5)	(6.0-6.5)	(10.5-11.0	(5.5-6.0)	(11.0-11.5	(8.5-9.0) (6.5-7.0) (8.0-8.	5) (6.5-7.	.0) (7.0-7	-7.5) (5.0-5	-5.5) (6.0	0-6.5) (8	.5-9.0)
Lab Sample II):	Direct Contact	Soil JB75	5362-2 JB7	75362-4 JI	B75362-1	JB75546-1	JB75365-1	JB75365-3	JB75365-2	JB75362-3	3 JB7554	16-2 JB7572	8-1 JB7563	36-3/3R JE	375728-2	JB75636-4	JB75546-4	JB75546-3	JB75636-	JB75636-	JB7615	3-3 JB76	153-4 JB7	6153-2 JB7	5728-3/3R JE	75534-1/1R	JB75534-2	JB75546-5	JB75546-6	JB76153-1	JB75983-4/4F	R JB75983-3/3F	JB75983-6	JB75636-1	JB75636-2	JB75365-4	JB75728-4	JB75983-7	7R JB75983-1/	1R JB75983-2/	2R JB75983-5/	5R JB76467	-1 JB76125-	I/1R JB7612	5-2 JB7612	25-3 JB76125	25-4/4R JB761 2014 9/10/2	125-5 JB7	6125-6 JB7/	467-2/2A
Date Sampled Matrix:	i:		8/28/ Si	6/2014 8/2 Soil	Soil 8	Soil	9/2/2014 Soil	8/29/2014 Soil	8/29/2014 Soil	8/29/2014 Soil	8/28/2014 Soil	9/2/201 Soil	14 9/5/20 Soil	14 9/4/2 Sc	2014 9 oil	Soil	9/4/2014 Soil	9/2/2014 Soil	9/2/2014 Soil	9/4/2014 Soil	9/4/2014 Soil	9/9/201 Soil	4 9/9/3	2014 9/9 oil \$	Soil 8	Soil	9/3/2014 Soil	9/3/2014 Soil	9/2/2014 Soil	9/2/2014 Soil	9/9/2014 Soil	9/8/2014 Soil	9/8/2014 Soil	9/8/2014 Soil	9/4/2014 Soil	9/4/2014 Soil	8/29/2014 Soil	9/5/2014 Soil	9/8/2014 Soil	9/8/2014 Soil	9/8/2014 Soil	9/8/2014 Soil	9/11/20 Soil	4 9/10/20 Soil	4 9/10/20 Soil	14 9/10/20 Soil	014 9/10/2 I Sol	014 9/10/2 oil Sc	oil 9/10	Soil 9/1	Soil Soil
NJDEP Extractable Pe	troleum Hydro	carbons																																																	
Total EPH	mg/k	EPH Calculat	tor ND ((0.15) ND	0 (0.16) N	ID (0.15)	ND (0.17)	ND (0.18)	ND (0.16)	ND (0.17)	ND (0.16)) ND (0.1	17) -		-	-	ND (0.15)	9.96 [2,300]	ND (0.16)	-	213 [2,50] ND (0.1	5) ND (0.15) 475	[3,600] 1,1	70 [4,500]	-	-	124 [3,900]	ND (0.15)	514 [5,800]	2,210 [4,100]	3,020 [9,500]	ND (0.15)	-	ND (0.15)	ND (0.18)	-	1,980 [4,80	6,330 [4,50	0] 1,310 [5,60	0] 1,180 [4,50	0] 910 [4,0	00] 1,210 [5,	200] 796 [5,5	00] ND (0.1	15) 1,870 [4	[4,500] ND (0	(0.14) ND	(0.15) 4,20	0 [3,800]
Metal Compounds																																																			
Aluminum	mg/kg										I			15 (,000		1			1						2,450	5.540	1			1	3.830 *	3.110 *	I	I	T			2 550 "	13 100 *	3.230 "	3.490 "		4,560			12.00	100 °			3,550
Antimony	mg/kg	450		-	-		-	-	-	-	-	-		4.		-	-	•	-		-			-			ND (2.5)	-	-	-	-	ND (1.0) ^a		-	-	-	-	-	ND (0.96)	,				4,560 ND (1.2		-	6.3				D (2.4)
Arsenic	mg/k			-	-	-		-	-	-	-	-	-	12	23	-	-	-	-	-	-	-		-	-	2.9	10.4	-	-	-	-	5.3 ª	3.5 a	-	-	-	-	-	5.2 a	32.3 ª	3.6 °	10.2 a	-	4.4 °	-	-	124	4 *	-	-	4
Barium	mg/k	59,000		-	-	-	-	-	-	-	-	-	-	35	51	-	-	-	-	-	-	-		-	- 1	ND (23)	38.5	-	-	-	-	26.6 "	12.6 °	-	-	-	-	-	10.1 *	213 "	18.3 *	13.5 °	-	18.1 "	-	-	455	5 * .	-	- N	ID (24)
Beryllium	mg/k	140		-	-	-			-	-	-	-	-	0.6	.65	-	-			-	-	-		-	- N	D (0.23)	0.48	-	-		-	0.47 "	ND (0.40) *	-	-	-		-	ND (0.38)	° 0.91 °	ND (0.43)	a 0.39 a	-	ND (0.48	j) ^a -	-	0.77	7 * -	-	-	0.33
Cadmium	mg/kg	78		-	-	-	-	-	-	-	-	-	-	1.	.4	-	-	-	-	-	-	-		-	- N	D (0.58)	ND (0.63)		-		-	ND (0.41) *	ND (0.40) *	-	-	-	-	-	ND (0.38)	" ND (0.92)	b ND (0.43)	" ND (0.39)		ND (0.48	i) ^a -	-	3.9	9 " -	-	- NE	0.61)
Calcium	mg/k			-	-	-	-	-	-	-	-	-	-	1,5	540	-	-	-	-	-	-	-		-	- N	ID (580)	937	-	-	-	-	1,030 *	1,090 °	-	-	-	-	-	ND (480)	a 1,650 a	ND (530)	ND (490)		ND (600	.) * -	-	4,58	ло ^а -	-		D (610)
Chromium	mg/k			-	-	-	-		-	-	-	-	-	16	65	-	-	-	-	-	-	-		-	-	7.1	24.1	-	-	-	-	12.8 *	10.4 *	-		-	-	-	8.9 *	53.8 °	9.1 *	15.9 a	-	13.4 *	-	-	103	3 ° -	-		18.3
Cobalt	mg/k	590		-	-	-			-	-	-	-	-	7.	11	-	-	-	-	-	-	-		-	- 1	ND (5.8)	ND (6.3)	-	-	-	-	5.2 a	ND (4.9) a	-	-	-	-	-	6.1 *	14.5 °	ND (5.3)	ND (4.9)	٠ .	ND (6.0)	, * -	-	9.4	, * -	-	- N	D (6.1)
Copper	mg/k	45,000		-	-	-	-	-	-	-	-	-	-	36	62	-	-	-	-	-	-	-		-	-	5.5	56.9	-	-	-	-	29.0 "	6.9 °	-	-	-	-	-	12.1 ª	135 "	9.4 "	8.7 "	-	6.4 "		-	575		-		7.2
Iron	mg/k	-		-	-	-	-		-	-	-	-	-	41,4	400	-	-	-	-	-	-	-		-	-	6810	21,200	-	-	-	-	19000 *	19200 *	-		-	-	-	11,700 4	58,400 °	11,900 *	23,800 *	-	17,600		-	34,20	J0 * -	-	- 1	5,700
Lead	mg/k	800		-	-	-	-	-	-	-	-	-	-	35	58	-	-	-	-	-	-	-		-	-	4.3	42.5	-	-	-	-	63.5 °	4.1 a	-	-	-	-	-	8.1 *	63.4 °	5.6 *	5.9 *	-	5.3 *	-	-	280	j * -	-	-	3.8
Magnesium	mg/k	-		-	-	-	-	-	-	-	-	-	-	47		-	-	-	-	-	-	-		-	_	1010	2260	-	-	-	-	1390 ª	1110 *	-	-	-	-	-	897 "	5,530 "	1,410 "	1,270 "	-	2,040		-	4,52		-		999
Manganese	mg/k	5,900		-	-	-	-	-	-	-	-	-	-	18	_	-	-	-	-	-	-	-		-		36.6	171	-	-	-	-	143 *	253 ª	-	-	-	-	-	52.7 a	652 ª	57.3 °	118 *	-	80.5 *		-	284	1.0	-		85.3
Mercury	mg/k	65		-	-	-	-	-	-	-	-	-	-	5.	i.5	-	-	-	-	-	-	-		-	- N	D (0.035)	0.66	-	-	-	-	(,	ND (0.034)	-	-	-	-	-	ND (0.033	3) 0.052	0.037	ND (0.035) -	ND (0.04		-	5		-		(0.038)
Nickel	mg/k	23,000		-	-	-	-	-	-	-	-	-	-	2		-	-	-	-	-	-	-		-	-	4.8	14.7	-	-	-	-	14.9 °	7.1 ^a	-	-	-	-	-	11.1 *	32.2 ª	10.8 *	9.4 "	-	9.6 *	-	-	39.2	2 * -	-	-	6.1
Potassium	mg/k	-		-	-	-	-	-	-	-	-	-	-		820	-	-	-	-	-	-	-		-		D (1,200)	ND (1,300)	-	-	-	-	698 *	637 *	-	-	-	-	-	546 "	2,520 "	799 *	712 ª	-	874 ª		-	2,09		-		(1,200)
Selenium	mg/k	5,700		-	-	-			-	-	-	-	-	7.		-	-	-	-	-	-	-		-	- 1	ND (2.3)	ND (2.5)	-	-	-	-	ND (1.0) ^a	ND (0.99) a	-	-	-	-	-	ND (0.96)	a ND (2.3)	ND (1.1)	ND (0.99)		ND (1.2)	/* ·	-	9.2		-		D (2.4)
Silver	mg/k	5,700		-	-	-	-		-	-	-	-	-	2.		-	-	-	-	-	-	-		-	- N	D (0.58)	ND (0.63)	-	-	-	-	ND (0.52) *	ND (0.49) *	-	-	-	-	-	ND (0.48)	* ND (0.58)	a ND (0.53)	^a ND (0.49)		ND (0.60	.,	-	2.9	, a -	-		0.61)
Sodium	mg/k			-	-	-	-	-	-	-	-	-	-	ND ((,	-	-	-	-	-	-	-		-		17	ND (1,300)	-	-	-	-	ND (520) a	ND (490) a	-	-	-	-	-	ND (480)	(000)	(000)	ND (490)	_	ND (600	,	-	ND (65	,			(1,200)
Thallium	mg/k			-	-	-	-	-	-	-	-	-	-	ND (0		-	-	-	-	-	-	-		-		. ,	ND (1.3)	-	-	-	-	ND (1.0) ^a		-	-	-	-	-	ND (0.96)		ND (1.1)	(0.00)		ND (1.2)	<i>'</i>	-	ND (1	-7	-		D (1.2)
Vanadium	mg/k			-	-	-	-	-	-	-	-	-	-	65		-	-	-	-	-	-	-		-			23.9	-	-	-	-	17.4 °	15.1 *	-	-	-	-	-	13.0 *		13.0 °	20.0 °	-	17.7 *		-	45.3		-		22.5
Zinc	mg/k	110,000		-	-	-	-	-	-	<u> </u>	-	-	-	19	90	-	-	-	-	-	-	-		-	-	12.2	87.8	-	-	-	-	131 *	22.1 ª	-	-	-	-	-	40.8 *	125 °	26.1 a	27.1 a	-	26.0 °		-	376	, a -	-	-	18.4
General Chemistry																																																			
Solids, Percent	%	-		-	-	-	-	-	-	-		-	84.4		-	88.2	-	-	-	-	-	91.1	94	1.4 7	5.4	88.5	-	-	-	-	93.4	-	-	-	-	-	-	96.9	-	81.6	-	-	-			-	-		-	-	-
Solids, Percent	%	-	94	4.7	90.9	94.4	82.9	82.2	89.2	87.4	84.3	81	-	64	4.1	-	90.5	83.9	82.1	90.9	95.5	-		-	-	-	82.9	95	75.7	92.9	-	90.6	86.4	90.1	83.5	93.9	80.5	-	89.1	-	87.9	87.4	78.6	77.5	84.2	90.6	66.	5.5 94	34 5	94.1	84.4

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 57 - Day Tankfield

			DTF-SS-1	DTF-SS-2	DTF-SS-3	DTF-SS-4	DTF-SS-5	DTF-SS-6	DTF-SS-7	DTF-SS-8	DTF-SS-9	DTF-SS-10	DTF-SS-11	DTF-SS-12	DTF-SS-13	DTF-SS-14	DTF-SS-15	DTF-SS-16	DTF-SS-17	DTF-SS-18	DTF-SS-19	DTF-SS-20	DTF-SS-21	DTF-SS-22
Client Sample ID:		NJ Non- Residential	(2.5-3.0)	(3.5-4.0)	(0.5-1.0)	(0.5-1.0)	(2.5-3.0)	(0.5-1.0)	(3.5-4.0)	(1.0-1.5)	(3.0-3.5)	(0.5-1.0)	(1.0-1.5)	(0.5-1.0)	(3.5-4.0)	(1.0-1.5)	(0.5-1.0)	(0.5-1.0)	(0.5-1.0)	(2.5-3.0)	(2.5-3.0)	(1.0-1.5)	(0.5-1.0)	(1.5-2.0)
Lab Sample ID:		Direct Contact	JB79238-4	JB79238-3/3T	JB79238-2	JB79238-1/1R	JB79494-1/1R	JB79494-2/2T	JB79494-4	JB79494-3	JB79238-5	JB79301-1	JB79301-2/2R	JB79301-3/3R	JB79301-4	JB79511-2/2R	JB79511-3	JB79511-4	JB79121-1/1R	JB79121-2	JB79121-3	JB79121-4/4R	JB79121-5/5T	JB79511-1
Date Sampled:		Soil	10/15/2014	10/15/2014	10/15/2014	10/15/2014	10/17/2014	10/17/2014	10/17/2014	10/17/2014	10/15/2014	10/14/2014	10/14/2014	10/14/2014	10/14/2014	10/16/2014	10/16/2014	10/16/2014	10/13/2014	10/13/2014	10/13/2014	10/13/2014	10/13/2014	10/16/2014
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
New Jersey Department of	Environmenta	al Protection Ex	tractable Petrole	eum Hydrocarboi	ns																			
EPH (C9-C28)	mg/kg	-	3,920	5,110a	1,360	6,680	3,820	2,710	403	112	1,120	6,550	4,730	1,130	129	1,790	839	74.8	3,540	65	459	2,040	9,590	2,260
EPH (>C28-C40)	mg/kg	-	ND (3.2)	221	318	934	123	298	109	91.8	89	544	642	731	58.1	140	116	71.1	ND (33)	ND (3.4)	64.2	ND (39)	ND (68)	162
Total EPH (C9-C40)	mg/kg	54,000***	3,920	5,330a	1,680	7,610	3,940	3,010	512	204	1,210	7,100	5,370	1,860	187	1,930	956	146	3,540	65	523	2,040	9,590	2,420
Volatile Organic Compound	ıds																							
Acetone	mg/kg	-	ND (0.15)	ND (0.39)	ND (0.15)	0.0644	ND (0.14)	ND (0.13)	ND (0.21)	0.133	ND (0.15)	ND (0.14)	0.024	0.0984	ND (0.16)	ND (0.19)	ND (0.17)	0.0471	0.0207	ND (0.70)	ND (0.43)	ND (1.9)	ND (0.28)	ND (0.16)
Benzene	mg/kg	5	ND (0.011)	0.448	0.284	0.022	1.7	0.0318	0.0996	ND (0.00022)	0.186	0.511	0.00054	0.0034	3.29	5.36	0.0985	ND (0.00020)	ND (0.00018)	0.174	7.12	5.62	4.34	4.53
2-Butanone (MEK)	mg/kg	44,000	ND (0.11)	ND (0.29)	ND (0.11)	0.0077 J	ND (0.11)	ND (0.095)	ND (0.16)	0.0347	ND (0.11)	ND (0.10)	ND (0.0018)	0.024	ND (0.12)	ND (0.14)	ND (0.13)	0.0066 J	ND (0.0019)	ND (0.52)	ND (0.32)	ND (1.4)	ND (0.21)	ND (0.12)
Carbon disulfide	mg/kg	110,000	ND (0.017)	ND (0.046)	0.0201 J	0.002	ND (0.017)	ND (0.015)	ND (0.025)	0.0019 J	0.0989 J	ND (0.016)	ND (0.00029)	0.00035 J	ND (0.019)	ND (0.022)	ND (0.020)	0.00052 J	0.00044 J	ND (0.081)	ND (0.050)	ND (0.22)	ND (0.033)	ND (0.019)
Chlorobenzene	mg/kg	7,400	ND (0.0083)	ND (0.022)	0.0337 J	ND (0.00014)	ND (0.0079)	ND (0.0071)	ND (0.012)	ND (0.00017)	ND (0.0085)	ND (0.0076)	ND (0.00014)	ND (0.00016)	ND (0.0090)	ND (0.011)	ND (0.0094)	ND (0.00016)	0.00036 J	ND (0.039)	ND (0.024)	ND (0.11)	ND (0.015)	ND (0.0092)
Cyclohexane	mg/kg		ND (0.021)	1.31	0.0519 J	0.0096	1.21	0.0944 J	0.686	ND (0.00044)	0.193	1.74	0.032	0.0046	0.321	7.11	1.25	0.00054 J	ND (0.00035)	0.420 J	2.29	24.6	7.37	1.89
1,2-Dichlorobenzene	mg/kg	59,000	ND (0.011)	ND (0.030)	0.0667	ND (0.00018)	ND (0.011)	ND (0.0096)	ND (0.016)	ND (0.00023)	ND (0.012)	ND (0.010)	ND (0.00019)	ND (0.00021)	ND (0.012)	0.124	ND (0.013)	ND (0.00021)	ND (0.00019)	ND (0.053)	ND (0.032)	ND (0.14)	ND (0.021)	ND (0.012)
1,3-Dichlorobenzene	mg/kg	59,000	ND (0.012)	ND (0.031)	ND (0.012)	ND (0.00019)	ND (0.011)	ND (0.0099)	ND (0.017)	ND (0.00024)	ND (0.012)	ND (0.011)	ND (0.00019)	ND (0.00022)	ND (0.013)	0.0964	ND (0.013)	ND (0.00022)	ND (0.00019)	ND (0.054)	ND (0.033)	ND (0.15)	ND (0.022)	ND (0.013)
1,4-Dichlorobenzene	mg/kg	13	ND (0.0098)	ND (0.026)	0.0156 J	ND (0.00016)	ND (0.0094)	ND (0.0084)	ND (0.014)	ND (0.00020)	ND (0.010)	ND (0.0091)	ND (0.00016)	0.00060 J	ND (0.011)	ND (0.013)	ND (0.011)	ND (0.00018)	ND (0.00016)	ND (0.046)	ND (0.028)	ND (0.12)	ND (0.018) 0.115	ND (0.011)
1,1-Dichloroethane	mg/kg	110,000	ND (0.011)	ND (0.029) 1.57	ND (0.011) 0.127	ND (0.00018) 0.0032	ND (0.011) 9.02	ND (0.0094) 0.0266 J	ND (0.016) 0.214	ND (0.00023)	ND (0.011) 0.306	ND (0.010) 0.246	ND (0.00018) 0.00096 J	ND (0.00021) 0.0017	ND (0.012) 5.97	ND (0.014) 80.1	ND (0.012) 0.354	ND (0.00021)	ND (0.00018)	ND (0.051) 12.2	ND (0.032) 11.2	ND (0.14) 28.4	10	ND (0.012) 2.09
Ethylbenzene	mg/kg	110,000	ND (0.012)							ND (0.00024) ND (0.00023)								ND (0.00022)	ND (0.00019)	2.72			2.08	
Isopropylbenzene Methyl Acetate	mg/kg mg/kg		0.45 ND (0.066)	11.4 ND (0.17)	0.259 J 0.210 J	0.0227 ND (0.0011)	2.84 ND (0.063)	0.133 J 0.103 J	0.481 0.220 J	ND (0.00023)	0.427 ND (0.068)	4.44 ND (0.060)	0.0768 ND (0.0011)	0.0076 ND (0.0012)	1.06 ND (0.071)	12.9 0.338 J	8.22 0.414	0.00043 J ND (0.0012)	ND (0.00018) ND (0.0011)	ND (0.31)	1.73 0.573 J	14.3 ND (0.83)	ND (0.12)	3.01 0.114 J
Methylcyclohexane			ND (0.000)	11.1	0.342	0.0418	6.12	0.344	3.38	ND (0.0014)	0.765	1.87	0.0506	0.0103	0.608	8.42	2.9	ND (0.0012)	ND (0.0011)	2.44	9.47	80.5	15.4	3.87
Methyl Tert Butyl Ether	mg/kg mg/kg	320	ND (0.0099)	ND (0.026)	0.0139 J	ND (0.00016)	ND (0.0094)	ND (0.0084)	ND (0.014)	0.00055 J	ND (0.010)	ND (0.0091)	0.00022 J	0.0051	0.008	ND (0.013)	ND (0.011)	ND (0.00024)	ND (0.00022)	ND (0.046)	0.975	0.426 J	0.0269 J	ND (0.011)
Methylene chloride	ma/ka	97	ND (0.089)	ND (0.23)	ND (0.089)	0.005	ND (0.085)	ND (0.0004)	ND (0.13)	ND (0.0019)	ND (0.010)	ND (0.082)	0.00022 3	ND (0.0017)	ND (0.096)	ND (0.013)	ND (0.11)	ND (0.0017)	ND (0.0017)	ND (0.41)	ND (0.25)	ND (1.1)	ND (0.17)	ND (0.098)
Tert Butyl Alcohol	mg/kg	11,000	ND (0.069)	ND (0.23)	2.59	0.0709	4.47	ND (0.14)	ND (0.13)	0.167	ND (0.091)	ND (0.052)	ND (0.0027)	2.6a	ND (0.18)	ND (0.11)	ND (0.10)	ND (0.0017)	ND (0.0013)	ND (0.41)	7.67	ND (1.1)	ND (0.17)	ND (0.098)
Toluene	mg/kg	91.000	ND (0.10)	0.0764 J	0.0260 J	0.0709	0.127	0.0170 J	0.0309 J	ND (0.00029)	0.673	0.557	ND (0.0027)	ND (0.00026)	2.85	0.143	0.103	ND (0.0036)	ND (0.0027)	1.65	0.995	1.59	1.76	0.322
1.2.4-Trichlorobenzene	mg/kg	820	ND (0.011)	ND (0.028)	ND (0.011)	ND (0.00017)	ND (0.010)	ND (0.0091)	ND (0.015)	ND (0.00022)	ND (0.011)	ND (0.0099)	ND (0.00020)	ND (0.00020)	ND (0.012)	0.0304 J	0.0318 J	ND (0.00020)	ND (0.00018)	ND (0.050)	ND (0.031)	ND (0.14)	ND (0.020)	ND (0.012)
m,p-Xylene	mg/kg	170.000	ND (0.024)	0.489	0.112	0.00074 J	2.68	0.0938	0.639	ND (0.00051)	1.21	0.238	ND (0.00041)	0.0062	17.5	260a	0.218	ND (0.00046)	ND (0.00041)	42.6	32.4	111	23.1	1.49
o-Xvlene	mg/kg	170,000	ND (0.013)	0.208	0.0255 J	0.0033	0.293	0.0504 J	0.0351 J	ND (0.00027)	0.337	0.0518 J	0.00092 J	0.0024	6.59	0.188	0.0499 J	ND (0.00024)	ND (0.00021)	17.5	5.19	12.5	1.64	0.193
Xvlene (total)	mg/kg	170,000	ND (0.013)	0.697	0.137	0.0041	2.98	0.144	0.674	ND (0.00027)	1.54	0.29	0.00092 J	0.0087	24	260a	0.268	ND (0.00024)	0.00023 J	60.2	37.6	124	24.7	1.68
Total TIC, Volatile	mg/kg		138.8 J (15)	562 J (11)	19.3 J (11)	1.99 J (11)	368 J (11)	89.6 J (14)	24.2 J (8)	0.009 J (1)	64.8 J (14)	160 J (10)	4 J (8)	0.927 J (13)	76 J (9)	35 J (2)	287.1 J (12)	0.0134 J (2)	0.538 J (13)	373 J (12)	197.3 J (13)	2,889 J (13)	290 J (13)	31.5 J (5)
Total Alkanes	mg/kg		0	142 J	6.7 J	1.09 J	100 J	4.1 J	39.9 J	0	3.9 J	124 J	3.25 J	0.138 J	32.7 J	260.8 J	43.6 J	0.029 J	0.111 J	99 J	22.7 J	209 J	33 J	166.9 J
Semi-Volatile Organic Com	nnounds																							
Com. Folding Organic Com	poulido																							
2-Methylnaphthalene	mg/kg	2,400	-	75.7	-	3.65	67.1a	3.92				-	2.83	1.1	-	10.7	-		17.6a	-	-	18.7a	41a	
Naphthalene	mg/kg	17	-	35.4	-	1.24	41.8a	0.535	-	-	-	-	ND (0.022)	0.346	-	8.51	-	-	3.73	-	-	6.32	1.23	-
Metal Compounds																								
Lead	mg/kg	800	9.3	9.3	52.1	81.6	27.9	47.1	37.7	34.2	40.2	91.6	29.2	68.7	60.3	51.3	46.2	72.4	21.8	14.1	188	21.2	27.0	47.5
Loud	myrky	000	9.5	3.5	JZ.1	01.0	21.0	77.1	51.1	J-7.2	70.2	31.0	20.2	00.7	00.0	51.5	70.2	12.7	21.0	14.1	100	21.2	21.0	47.0
General Chemistry			_	_								_		_				_				_	_	
Solids, Percent	%	-	87.8	87.6	85.4	90.3	85.1	88.4	72.7	71.9	81.1	88.7	87.2	79.4	78.8	76.1	81.3	79.9	89.3	85.5	80.8	76	86.1	82.3
				•	•	•				•										*			•	

All results in mg/kg unless otherwise noted.

Exceeds NJDEP Non-Residential Soil Remediation Standard

- * = NJDEP EPH Trigger Concentration for Contingency Analyses
 ** = NJDEP EPH Residential Soil Remediation Criteria
 *** = NJDEP EPH Non-residential Soil Remediation Criteria
- SS = Sample-specific Standard (contingency analyses conducted as per Table 2A)
- a = Analysis performed at Accutest Laboratories, Massachusetts
- () = Method Detection Limit in parentheses

milligrams per kilogram Estimated Value Not Sampled mg/kg NS Not Detected ND Not Analyzed Method Detection Limit NA () Compound Found in Blank Result is from 2nd run

Client Sample ID:			SRU-SS-4	SRU-SS-4A
Lab Sample ID:		NJ Non- Residential	JB99097-5	JB99097-7
Date Sampled:		Direct Contact	7/14/2015	7/14/2015
Depth:		Soil	1.5-2.0 ft	6.5-7.0 ft
Matrix:		İ	Soil	Soil
GC/MS Volatiles (SW846 82600	C)	•		
Acetone	mg/kg	NA	0.0059 J	0.0085 J
Benzene	mg/kg	5	ND (0.00015)	ND (0.00013)
Bromochloromethane	mg/kg		ND (0.00035)	ND (0.00031)
Bromodichloromethane	mg/kg	3	ND (0.00018)	ND (0.00016)
Bromoform	mg/kg	280	ND (0.00027)	ND (0.00024)
Bromomethane	mg/kg	59	ND (0.00042)	ND (0.00037)
2-Butanone (MEK)	mg/kg	44000	ND (0.0022)	ND (0.0019)
Carbon disulfide	mg/kg	110000	0.00031 J	ND (0.00023)
Carbon tetrachloride	mg/kg	2	ND (0.00026)	ND (0.00023)
Chlorobenzene	mg/kg	7400	ND (0.00018)	ND (0.00016)
Chloroethane	mg/kg	1100	ND (0.00055)	ND (0.00048)
Chloroform	mg/kg	2	ND (0.00033)	ND (0.00015)
Chloromethane	mg/kg	12	ND (0.00017)	ND (0.00015)
Cyclohexane	mg/kg		ND (0.00036)	ND (0.00032)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00050)	ND (0.00052)
Dibromochloromethane	mg/kg	8	ND (0.0002)	ND (0.00033)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00023)	ND (0.00021)
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00013)	ND (0.00013)
	mg/kg	59000	ND (0.00014)	ND (0.00012)
1,3-Dichlorobenzene	mg/kg	13	ND (0.00016)	ND (0.00010)
1,4-Dichlorobenzene				
Dichlorodifluoromethane	mg/kg	230000	ND (0.00041)	ND (0.00036)
1,1-Dichloroethane	mg/kg	24	ND (0.00016)	ND (0.00014)
1,2-Dichloroethane	mg/kg	150	ND (0.00015)	ND (0.00014)
1,1-Dichloroethene	mg/kg		ND (0.00067)	ND (0.00060)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00089)	ND (0.00079)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00068)	ND (0.00060)
1,2-Dichloropropane	mg/kg	5	ND (0.00027)	ND (0.00024)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00013)	ND (0.00012)
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00020)	ND (0.00018)
Ethylbenzene	mg/kg	110000	ND (0.00019)	ND (0.00016)
Freon 113	mg/kg		ND (0.00051)	ND (0.00045)
2-Hexanone	mg/kg	-	ND (0.0015)	ND (0.0014)
Isopropylbenzene	mg/kg	-	ND (0.00012)	ND (0.00011)
Methyl Acetate	mg/kg	NA	ND (0.00098)	ND (0.00087)
Methylcyclohexane	mg/kg		ND (0.00026)	ND (0.00023)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00017)	ND (0.00015)
4-Methyl-2-pentanone(MIBK)	mg/kg		ND (0.00052)	ND (0.00046)
Methylene chloride	mg/kg	97	ND (0.0011)	ND (0.00099)
Styrene	mg/kg	260	ND (0.00020)	ND (0.00018)
Tert Butyl Alcohol	mg/kg	11000	-	-
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00020)	ND (0.00018)
Tetrachloroethene	mg/kg	5	ND (0.00034)	ND (0.00030)
Toluene	mg/kg	91000	0.00031 J	ND (0.00021)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00020)	ND (0.00018)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00019)	ND (0.00017)
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00017)	ND (0.00015)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00017)	ND (0.00015)
Trichloroethene	mg/kg	20	ND (0.00017)	ND (0.00015)
Trichlorofluoromethane	mg/kg	340000	ND (0.00028)	ND (0.00025)
Vinyl chloride	mg/kg	2	ND (0.00022)	ND (0.00020)
m,p-Xylene	mg/kg	170000	0.00042 J	ND (0.00035)
o-Xylene	mg/kg	170000	0.00041 J	ND (0.00028)
Xylene (total)	mg/kg	170000	0.00083 J	ND (0.00028)

Client Sample ID:		NIPer	SRU-SS-4	SRU-SS-4A		
Lab Sample ID:		NJ Non- Residential	JB99097-5	JB99097-7		
Date Sampled:		Direct Contact	7/14/2015	7/14/2015		
Depth:		Soil	1.5-2.0 ft	6.5-7.0 ft		
Matrix:			Soil	Soil		
GC/MS Volatile TIC						
Total TIC, Volatile	mg/kg	-	0.0058 J	0		
Total Alkanes	mg/kg	-	0.00000	0		
GC/MS Semi-volatiles (SW846						
2-Chlorophenol 4-Chloro-3-methyl phenol	mg/kg mg/kg	2200	ND (0.073) ND (0.18)	ND (0.075) ND (0.19)		
2,4-Dichlorophenol	mg/kg	2100	ND (0.18)	ND (0.19)		
2,4-Dimethylphenol	mg/kg	14000	ND (0.18)	ND (0.19)		
2,4-Dinitrophenol 4,6-Dinitro-o-cresol	mg/kg mg/kg	1400 68	ND (0.18) ND (0.18)	ND (0.19) ND (0.19)		
2-Methylphenol	mg/kg	3400	ND (0.073)	ND (0.19)		
3&4-Methylphenol	mg/kg	-	ND (0.073)	ND (0.075)		
2-Nitrophenol 4-Nitrophenol	mg/kg mg/kg	-	ND (0.18) ND (0.37)	ND (0.19) ND (0.37)		
Pentachlorophenol	mg/kg	10	ND (0.37)	ND (0.37)		
Phenol	mg/kg	210000	ND (0.073)	ND (0.075)		
2,3,4,6-Tetrachlorophenol	mg/kg	-	ND (0.18)	ND (0.19)		
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	mg/kg mg/kg	68000 74	ND (0.18) ND (0.18)	ND (0.19) ND (0.19)		
Acenaphthene	mg/kg	37000	0.0209 J	ND (0.037)		
Acenaphthylene	mg/kg	300000	ND (0.037)	ND (0.037)		
Acetophenone Anthracene	mg/kg mg/kg	5 30000	ND (0.18) 0.0388	ND (0.19) ND (0.037)		
Anthracene Atrazine	mg/kg mg/kg	2400	ND (0.073)	ND (0.037) ND (0.075)		
Benzo(a)anthracene	mg/kg	2	0.196	0.0175 J		
Benzo(a)pyrene	mg/kg	0.2	0.143	ND (0.037)		
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	0.103 0.104	ND (0.037) ND (0.037)		
Benzo(k)fluoranthene	mg/kg	23	0.104 0.0227 J	ND (0.037)		
4-Bromophenyl phenyl ether	mg/kg	-	ND (0.073)	ND (0.075)		
Butyl benzyl phthalate	mg/kg	14000	0.143	ND (0.075)		
1,1'-Biphenyl	mg/kg	34000	ND (0.073)	ND (0.075)		
Benzaldehyde 2-Chloronaphthalene	mg/kg mg/kg	68000	ND (0.18) ND (0.073)	ND (0.19) ND (0.075)		
4-Chloroaniline	mg/kg	-	ND (0.18)	ND (0.19)		
Carbazole	mg/kg	96	ND (0.073)	ND (0.075)		
Caprolactam	mg/kg	340000	ND (0.073)	ND (0.075)		
Chrysene bis(2-Chloroethoxy)methane	mg/kg mg/kg	230	0.518 ND (0.073)	0.0327 J ND (0.075)		
bis(2-Chloroethyl)ether	mg/kg	2	ND (0.073)	ND (0.075)		
bis(2-Chloroisopropyl)ether	mg/kg	67	ND (0.073)	ND (0.075)		
4-Chlorophenyl phenyl ether	mg/kg	-	ND (0.073)	ND (0.075)		
2,4-Dinitrotoluene	mg/kg	3	ND (0.037)	ND (0.037)		
2,6-Dinitrotoluene 3,3'-Dichlorobenzidine	mg/kg mg/kg	3 4	ND (0.037) ND (0.073)	ND (0.037) ND (0.075)		
1,4-Dioxane	mg/kg	-	ND (0.037)	ND (0.037)		
Dibenzo(a,h)anthracene	mg/kg	0.2	0.06	ND (0.037)		
Dibenzofuran	mg/kg	-	ND (0.073)	ND (0.075)		
Di-n-butyl phthalate Di-n-octyl phthalate	mg/kg mg/kg	68000 27000	ND (0.073) ND (0.073)	ND (0.075) ND (0.075)		
Diethyl phthalate	mg/kg	550000	ND (0.073)	ND (0.075)		
Dimethyl phthalate	mg/kg	-	ND (0.073)	ND (0.075)		
bis(2-Ethylhexyl)phthalate	mg/kg	140	0.618	0.238		
Fluoranthene Fluorene	mg/kg mg/kg	24000 24000	0.101 ND (0.037)	ND (0.037) ND (0.037)		
Hexachlorobenzene	mg/kg	1	ND (0.037)	ND (0.037)		
Hexachlorobutadiene	mg/kg	25	ND (0.037)	ND (0.037)		
Hexachlorocyclopentadiene	mg/kg	110	ND (0.37)	ND (0.37)		
Hexachloroethane Indeno(1,2,3-cd)pyrene	mg/kg	140	ND (0.18) 0.076	ND (0.19) ND (0.037)		
Indeno(1,2,3-cd)pyrene Isophorone	mg/kg mg/kg	2000	ND (0.073)	ND (0.037) ND (0.075)		
2-Methylnaphthalene	mg/kg	2400	0.0296 J	ND (0.075)		
2-Nitroaniline	mg/kg	23000	ND (0.18)	ND (0.19)		
3-Nitroaniline 4-Nitroaniline	mg/kg mg/ka	-	ND (0.18) ND (0.18)	ND (0.19) ND (0.19)		
Naphthalene	mg/kg mg/kg	17	ND (0.18) ND (0.037)	ND (0.19) ND (0.037)		
Nitrobenzene	mg/kg	340	ND (0.073)	ND (0.075)		
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND (0.073)	ND (0.075)		
N-Nitrosodiphenylamine	mg/kg	390	ND (0.18)	ND (0.19)		
Phenanthrene Pyrene	mg/kg mg/kg	300000 18000	0.353 0.432	0.0311 J 0.0381		
1,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.18)	ND (0.19)		
GC/MS Semi-volatile TIC						
Total TIC, Semi-Volatile	mg/kg	-	12.02 J	3.93 J		
Total Alkanes	mg/kg	-	-	-		
Total Alkanes	mg/kg	-	4.56 J	0		
Metals Analysis						
Sulfur	mg/kg		2250	231		
	39					
General Chemistry						
	ma/ka		<2.4	<2 A		
General Chemistry Nitrogen, Ammonia Solids, Percent	mg/kg	-	<2.4 89.5	<2.4 85.5		

All results in mg/kg unless of	otherwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Lab Sample ID:		NJ Non-	API-SS-10	API-SS-10A
		Residential	JB99428-7	JB99428-8
Date Sampled:		Direct Contact	7/17/2015	7/17/2015
Sample Depth:		Soil	1.0-1.5 ft	26.0-26.5 ft
Matrix:			Soil	Soil
GC/MS Volatiles (SW846 8260C)				
Acetone	mg/kg	NA	0.0326	0.0078 J
Benzene	mg/kg	5	ND (0.00013)	ND (0.00013)
Bromochloromethane	mg/kg	-	ND (0.00029)	ND (0.00030)
Bromodichloromethane I	mg/kg	3	ND (0.00015)	ND (0.00015)
Bromoform	mg/kg	280	ND (0.00022)	ND (0.00023)
Bromomethane	mg/kg	59	ND (0.00034)	ND (0.00035)
2-Butanone (MEK)	mg/kg	44000	ND (0.0018)	ND (0.0018)
Carbon disulfide	mg/kg	110000	0.0013 J	0.0011 J
Carbon tetrachloride	mg/kg	2	ND (0.00022)	ND (0.00022)
Chlorobenzene	mg/kg	7400	ND (0.00015)	ND (0.00015)
Chloroethane	mg/kg	1100	ND (0.00046)	ND (0.00047)
Chloroform	mg/kg	2	ND (0.00014)	ND (0.00014)
	mg/kg	12	ND (0.00025)	ND (0.00025)
	mg/kg	-	ND (0.00030)	ND (0.00031)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00051)	ND (0.00053)
	mg/kg	8	ND (0.00019)	ND (0.00020)
	mg/kg	0.04	ND (0.00012)	ND (0.00013)
,	mg/kg	59000	ND (0.00012)	0.00057 J
, -	mg/kg	59000	ND (0.00015)	ND (0.00015)
,	mg/kg	13	ND (0.00021)	ND (0.00022)
	mg/kg	230000	ND (0.00034)	ND (0.00035)
,	mg/kg	24	ND (0.00013)	ND (0.00014)
	mg/kg	3	ND (0.00013)	ND (0.00013)
	mg/kg	150	ND (0.00056)	ND (0.00057)
	mg/kg	560	ND (0.00074)	ND (0.00075)
	mg/kg	720	ND (0.00056)	ND (0.00058)
, 1 1	mg/kg	5	ND (0.00023)	0.0014 J
	mg/kg	7	ND (0.00011)	ND (0.00011)
· · ·	mg/kg	110000	ND (0.00017)	ND (0.00017)
	mg/kg		ND (0.00015) ND (0.00042)	ND (0.00016) ND (0.00043)
	mg/kg	-	ND (0.00042)	ND (0.00043)
	mg/kg mg/kg	-	ND (0.0013)	ND (0.0013)
- 1 /	mg/kg	- NA	ND (0.00010)	ND (0.00010)
	mg/kg	INA	ND (0.00021)	ND (0.00022)
	mg/kg	320	ND (0.00021)	0.00050 J
, ,	mg/kg	-	ND (0.00043)	ND (0.00044)
, , , ,	mg/kg	97	ND (0.00093)	ND (0.00095)
	mg/kg	260	ND (0.00017)	ND (0.00017)
	mg/kg	11000	ND (0.0025)	0.0130 J
	mg/kg	3	ND (0.00017)	ND (0.00017)
	mg/kg	5	ND (0.00028)	ND (0.00029)
	mg/kg	91000	0.0019	0.0055
	mg/kg	-	ND (0.00017)	ND (0.00017)
, ,-	mg/kg	820	ND (0.00016)	ND (0.00016)
- ' '	mg/kg	4200	ND (0.00014)	ND (0.00014)
- ' '	mg/kg	6	ND (0.00014)	ND (0.00014)
, ,	mg/kg	20	ND (0.00014)	0.00058 J
	mg/kg	340000	ND (0.00024)	ND (0.00024)
	mg/kg	2	ND (0.00019)	ND (0.00019)
	mg/kg	170000	ND (0.00033)	ND (0.00034)
	mg/kg	170000	ND (0.00026)	ND (0.00027)
	mg/kg	170000	ND (0.00026)	ND (0.00027)

Lab Sample ID: Date Sampled: Sample Depth: Matrix:		NJ Non- Residential	JB99428-7	
Date Sampled: Sample Depth:			JD33420-/	JB99428-8
Sample Depth:		Direct Contact	7/17/2015	7/17/2015
		Soil	1.0-1.5 ft	26.0-26.5 ft
		1	Soil	Soil
			00.11	- Co.:
GC/MS Volatile TIC				
Total TIC, Volatile	mg/kg	-	0.593 J	0
Total Alkanes	mg/kg	-	0.000739 J	0
00/110 0 1 (01/10/10 0	0700)			
GC/MS Semi-volatiles (SW846 8	270D)			
2-Chlorophenol	mg/kg	2200	ND (0.069)	ND (0.073)
4-Chloro-3-methyl phenol 2,4-Dichlorophenol	mg/kg mg/kg	2100	ND (0.17) ND (0.17)	ND (0.18) ND (0.18)
2,4-Dimethylphenol	mg/kg	14000	ND (0.17)	ND (0.18)
2,4-Dinitrophenol	mg/kg	1400	ND (0.17)	ND (0.18)
4,6-Dinitro-o-cresol	mg/kg	68	ND (0.17)	ND (0.18)
2-Methylphenol 3&4-Methylphenol	mg/kg	3400	ND (0.069) ND (0.069)	ND (0.073) ND (0.073)
2-Nitrophenol	mg/kg mg/kg	-	ND (0.009)	ND (0.073)
4-Nitrophenol	mg/kg	-	ND (0.34)	ND (0.36)
Pentachlorophenol	mg/kg	10	ND (0.17)	ND (0.18)
Phenol 2,3,4,6-Tetrachlorophenol	mg/kg	210000	ND (0.069) ND (0.17)	ND (0.073) ND (0.18)
2,3,4,6-1 etrachiorophenol	mg/kg mg/kg	68000	ND (0.17) ND (0.17)	ND (0.18) ND (0.18)
2,4,6-Trichlorophenol	mg/kg	74	ND (0.17)	ND (0.18)
Acenaphthene	mg/kg	37000	0.0468	ND (0.036)
Acenaphthylene	mg/kg	300000	ND (0.034)	ND (0.036)
Acetophenone Anthracene	mg/kg mg/kg	5 30000	ND (0.17) ND (0.034)	ND (0.18) ND (0.036)
Atrazine	mg/kg	2400	ND (0.069)	ND (0.073)
Benzo(a)anthracene	mg/kg	2	0.0171 J	ND (0.036)
Benzo(a)pyrene	mg/kg	0.2	ND (0.034)	ND (0.036)
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	ND (0.034) ND (0.034)	ND (0.036) ND (0.036)
Benzo(k)fluoranthene	mg/kg	23	ND (0.034)	ND (0.036)
4-Bromophenyl phenyl ether	mg/kg	-	ND (0.069)	ND (0.073)
Butyl benzyl phthalate	mg/kg	14000	ND (0.069)	ND (0.073)
1,1'-Biphenyl Benzaldehyde	mg/kg mg/kg	34000 68000	ND (0.069) ND (0.17)	ND (0.073) ND (0.18)
2-Chloronaphthalene	mg/kg	-	ND (0.069)	ND (0.073)
4-Chloroaniline	mg/kg	-	ND (0.17)	ND (0.18)
Carbazole	mg/kg	96	ND (0.069)	ND (0.073)
Caprolactam Chrysene	mg/kg mg/kg	340000 230	ND (0.069) 0.0627	ND (0.073) ND (0.036)
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.069)	ND (0.073)
bis(2-Chloroethyl)ether	mg/kg	2	ND (0.069)	ND (0.073)
bis(2-Chloroisopropyl)ether 4-Chlorophenyl phenyl ether	mg/kg mg/kg	67	ND (0.069) ND (0.069)	ND (0.073) ND (0.073)
2,4-Dinitrotoluene	mg/kg	3	ND (0.034)	ND (0.073)
2,6-Dinitrotoluene	mg/kg	3	ND (0.034)	ND (0.036)
3,3'-Dichlorobenzidine	mg/kg	4	ND (0.069)	ND (0.073)
1,4-Dioxane Dibenzo(a,h)anthracene	mg/kg mg/kg	0.2	ND (0.034) ND (0.034)	ND (0.036) ND (0.036)
Dibenzo(a,n)animacene Dibenzofuran	mg/kg	- 0.2	ND (0.034)	ND (0.036)
Di-n-butyl phthalate	mg/kg	68000	ND (0.069)	ND (0.073)
Di-n-octyl phthalate	mg/kg	27000	ND (0.069)	ND (0.073)
Diethyl phthalate	mg/kg	550000	ND (0.069)	ND (0.073) ND (0.073)
Dimethyl phthalate bis(2-Ethylhexyl)phthalate	mg/kg mg/kg	140	ND (0.069) 0.0591 J	ND (0.073)
Fluoranthene	mg/kg	24000	ND (0.034)	ND (0.036)
Fluorene	mg/kg	24000	ND (0.034)	ND (0.036)
Hexachlorobenzene Hexachlorobutadiene	mg/kg	1 25	ND (0.069) ND (0.034)	ND (0.073) ND (0.036)
Hexachlorocyclopentadiene	mg/kg mg/kg	110	ND (0.034) ND (0.34)	ND (0.036)
Hexachloroethane	mg/kg	140	ND (0.17)	ND (0.18)
Indeno(1,2,3-cd)pyrene	mg/kg	2	ND (0.034)	ND (0.036)
Isophorone 2-Methylnaphthalene	mg/kg mg/kg	2000 2400	ND (0.069) ND (0.069)	ND (0.073) ND (0.073)
2-Nitroaniline	mg/kg	23000	ND (0.009)	ND (0.073)
3-Nitroaniline	mg/kg	-	ND (0.17)	ND (0.18)
4-Nitroaniline	mg/kg	-	ND (0.17)	ND (0.18)
Naphthalene Nitrobenzene	mg/kg	17	ND (0.034)	ND (0.036)
Nitrobenzene N-Nitroso-di-n-propylamine	mg/kg mg/kg	340 0.3	ND (0.069) ND (0.069)	ND (0.073) ND (0.073)
N-Nitrosodiphenylamine	mg/kg	390	ND (0.17)	ND (0.18)
	mg/kg	300000	ND (0.034)	ND (0.036)
Phenanthrene Pyrene	mg/kg	18000	0.0669	ND (0.036)

Client Comple ID:			API-SS-10	API-SS-10A
Client Sample ID:		NJ Non-	AF1-33-10	AF1-33-10A
Lab Sample ID:		Residential	JB99428-7	JB99428-8
Date Sampled:		Direct Contact	7/17/2015	7/17/2015
Sample Depth:		Soil	1.0-1.5 ft	26.0-26.5 ft
Matrix:			Soil	Soil
GC/MS Semi-volatile TIC				
Total TIC, Semi-Volatile	mg/kg	-	12.25 J	0.3 J
Total Alkanes	mg/kg	-	7.89 J	0
Metals Analysis				
Aluminum	mg/kg	NA	5990	1140
Antimony	mg/kg	450	<2.1	<2.3
Arsenic	mg/kg	19	<2.1	<2.3
Barium	mg/kg	59000	<21	<23
Beryllium	mg/kg	140	<0.21	0.27
Cadmium	mg/kg	78	<0.53	<0.57
Calcium	mg/kg	-	3140	<570
Chromium	mg/kg	-	14.8	7.1
Cobalt	mg/kg	590	<5.3	<5.7
Copper	mg/kg	45000	25.4	<2.9
Iron	mg/kg	-	10600	1570
Lead	mg/kg	800	6.7	<2.3
Magnesium	mg/kg	-	2710	<570
Manganese	mg/kg	5900	90.7	6
Mercury	mg/kg	65	<0.034	<0.037
Nickel	mg/kg	23000	10.3	<4.6
Potassium	mg/kg	-	<1100	<1100
Selenium	mg/kg	5700	<2.1	<2.3
Silver	mg/kg	5700	<0.53	<0.57
Sodium	mg/kg		<1100	<1100
Thallium	mg/kg	79	<1.1	<1.1
Vanadium	mg/kg	1100	38.9	5.9
Zinc	mg/kg	110000	23.5	<5.7
General Chemistry				
Nitrogen, Ammonia	mg/kg	-	<2.5	<2.7
Solids, Percent	%	-	92.7	87.5
Sulfide, Neutral Extraction	mg/kg	-	<4.2	<4.5
pH	su		9.17	6.84

1	
All results in mg/kg unless	otherwise noted.
	Exceeds NJDEP Non-Residential Soil Remediation Standard
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
a b	Result is from 2nd run

Table 4-1
Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results at AOC 60 - Avenue B Tankfield

Client Sample ID:	NJ Non- Residential	ABTF-SS-1	ABTF-SS-2	ABTF-SS-3	ABTF-SS-3	ABTF-SS-3	ABTF-SS-4	ABTF-SS-5	ABTF-SS-6
Lab Sample ID:	Direct Contact	JB99248-2	JB99248-3	JB99248-4	JB99248-4R	JB99248-4RT	JB99248-5	JB99248-6	JB99248-7
Date Sampled:	Soil	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:		3.0-3.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.0-2.5 ft	2.0-2.5 ft	4.5-5.0 ft	4.5-5.0 ft	3.5-4.0 ft

GC/MS Volatiles (SW846 8260C)

GC/MS Volatiles (SVV646 6260C	<u> </u>									
Acetone	mg/kg	NA	0.0122	0.0044 J	ND (0.12)	_	_	ND (0.12)	ND (0.11)	0.0039 J
Benzene	mg/kg	5	0.00081	0.00083	ND (0.0069)	_	_	ND (0.0070)	ND (0.0067)	ND (0.00015)
	mg/kg	-	ND (0.00031)	ND (0.00031)	ND (0.016)	_	_	ND (0.016)	ND (0.0007)	ND (0.00015)
Bromochloromethane Bromodiableromethane	mg/kg	3	ND (0.00031)	ND (0.00031)	ND (0.0081)	_	_	ND (0.0082)	ND (0.0078)	ND (0.00033)
Bromodichloromethane		280	ND (0.00010)	ND (0.00010)	ND (0.0001)	-	-	ND (0.002)	ND (0.012)	ND (0.00018)
Bromoform	mg/kg	59	ND (0.00024)	ND (0.00024)	ND (0.012)	_	-	ND (0.012)	ND (0.012)	ND (0.00027)
Bromomethane	mg/kg	44000	` ′	, ,	` '	_	-	, ,	` '	, ,
2-Butanone (MEK)	mg/kg		ND (0.0019)	ND (0.0019)	ND (0.099)		-	ND (0.10)	ND (0.096)	ND (0.0022)
Carbon disulfide	mg/kg	110000	ND (0.00023)	ND (0.00023)	ND (0.012)	-	-	ND (0.012)	ND (0.011)	ND (0.00026)
Carbon tetrachloride	mg/kg	7400	ND (0.00023)	ND (0.00023)	ND (0.012)	-	-	ND (0.012) ND (0.0082)	ND (0.012)	ND (0.00026) ND (0.00018)
Chlorobenzene	mg/kg		ND (0.00015)	ND (0.00016)	ND (0.0081)	-		, ,	ND (0.0078)	, ,
Chloroethane	mg/kg	1100	ND (0.00048)	ND (0.00049)	ND (0.025)		-	ND (0.025)	ND (0.024)	ND (0.00054)
2-Chloroethyl vinyl ether	mg/kg	-	ND (0.0050)	ND (0.0051)	ND (0.26)	-	-	ND (0.26)	ND (0.25)	ND (0.0056)
Chloroform	mg/kg	2	ND (0.00015)	ND (0.00015)	ND (0.0077)	-	-	ND (0.0079)	ND (0.0075)	ND (0.00017)
Chloromethane	mg/kg	12	ND (0.00026)	ND (0.00026)	ND (0.014)	-	-	ND (0.014)	ND (0.013)	ND (0.00030)
Cyclohexane	mg/kg	-	0.0028	ND (0.00032)	0.0190 J	-	-	ND (0.017)	ND (0.016)	ND (0.00036)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00054)	ND (0.00055)	ND (0.028)	-	-	ND (0.029)	ND (0.027)	ND (0.00061)
Dibromochloromethane	mg/kg	8	ND (0.00020)	ND (0.00021)	ND (0.011)	-	-	ND (0.011)	ND (0.010)	ND (0.00023)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00013)	ND (0.00013)	ND (0.0068)	-	-	ND (0.0069)	ND (0.0066)	ND (0.00015)
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00012)	ND (0.00012)	ND (0.0063)	-	-	ND (0.0064)	ND (0.0061)	ND (0.00014)
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00016)	ND (0.00016)	ND (0.0082)	-	-	ND (0.0083)	ND (0.0079)	ND (0.00018)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00022)	ND (0.00023)	ND (0.012)	-	-	ND (0.012)	ND (0.011)	ND (0.00025)
Dichlorodifluoromethane	mg/kg	230000	ND (0.00036)	ND (0.00036)	ND (0.019)	-	-	ND (0.019)	ND (0.018)	ND (0.00041)
1,1-Dichloroethane	mg/kg	24	ND (0.00014)	ND (0.00014)	ND (0.0073)	-	-	ND (0.0075)	ND (0.0071)	ND (0.00016)
1,2-Dichloroethane	mg/kg	3	ND (0.00013)	ND (0.00014)	ND (0.0070)	-	-	ND (0.0071)	ND (0.0067)	ND (0.00015)
1,1-Dichloroethene	mg/kg	150	ND (0.00059)	ND (0.00060)	ND (0.031)	-	-	ND (0.031)	ND (0.030)	ND (0.00067)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00078)	ND (0.00079)	ND (0.040)	-	-	ND (0.041)	ND (0.039)	ND (0.00088)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00059)	ND (0.00060)	ND (0.031)	-	-	ND (0.031)	ND (0.030)	ND (0.00067)
1,2-Dichloropropane	mg/kg	5	ND (0.00024)	ND (0.00024)	ND (0.012)	-	-	ND (0.013)	ND (0.012)	ND (0.00027)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	ND (0.00012)	ND (0.0061)	-	-	ND (0.0062)	ND (0.0059)	ND (0.00013)
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00018)	ND (0.00018)	ND (0.0092)	-	-	ND (0.0094)	ND (0.0089)	ND (0.00020)
Ethylbenzene	mg/kg	110000	0.0764	ND (0.00016)	0.0246 J	-	-	ND (0.0086)	ND (0.0082)	ND (0.00018)
Freon 113	mg/kg	-	ND (0.00045)	ND (0.00045)	ND (0.023)	-	-	ND (0.024)	ND (0.022)	ND (0.00051)
2-Hexanone	mg/kg	-	ND (0.0013)	ND (0.0014)	ND (0.070)	-	-	ND (0.071)	ND (0.067)	ND (0.0015)
Isopropylbenzene	mg/kg	-	0.0539	ND (0.00011)	0.834	-	-	ND (0.0056)	ND (0.0053)	ND (0.00012)
Methyl Acetate	mg/kg	NA	ND (0.00086)	ND (0.00087)	ND (0.045)	-	-	ND (0.045)	ND (0.043)	ND (0.00097)
Methylcyclohexane	mg/kg	-	0.0366	ND (0.00023)	0.212	-	-	ND (0.012)	ND (0.011)	ND (0.00026)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00015)	ND (0.00015)	ND (0.0079)	-	-	ND (0.0081)	ND (0.0077)	ND (0.00017)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00046)	ND (0.00046)	ND (0.024)	-	-	ND (0.024)	ND (0.023)	ND (0.00052)
Methylene chloride	mg/kg	97	ND (0.00098)	ND (0.00099)	ND (0.051)	-	-	ND (0.052)	ND (0.049)	ND (0.0011)
Styrene	mg/kg	260	ND (0.00018)	ND (0.00018)	ND (0.0092)	-	-	ND (0.0094)	ND (0.0089)	ND (0.00020)
Tert Butyl Alcohol	mg/kg	11000	ND (0.0027)	ND (0.0027)	ND (0.14)	-	-	ND (0.14)	ND (0.13)	ND (0.0030)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00017)	ND (0.00018)	ND (0.0091)	-	-	ND (0.0093)	ND (0.0088)	ND (0.00020)
Tetrachloroethene	mg/kg	5	ND (0.00030)	ND (0.00030)	ND (0.016)	-	-	ND (0.016)	ND (0.015)	ND (0.00034)
Toluene	mg/kg	91000	0.0039	0.0093	ND (0.011)	-	-	ND (0.011)	ND (0.010)	0.0074
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00018)	ND (0.00018)	ND (0.0091)	-	-	ND (0.0093)	ND (0.0088)	ND (0.00020)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00017)	ND (0.00017)	ND (0.0088)	-	-	ND (0.0089)	ND (0.0085)	ND (0.00019)
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00015)	ND (0.00015)	ND (0.0077)	-	-	ND (0.0079)	ND (0.0075)	ND (0.00017)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00015)	ND (0.00015)	ND (0.0076)	-	-	ND (0.0078)	ND (0.0074)	ND (0.00017)
Trichloroethene	mg/kg	20	ND (0.00015)	ND (0.00015)	ND (0.0076)	-	-	ND (0.0078)	ND (0.0074)	ND (0.00017)
Trichlorofluoromethane	mg/kg	340000	ND (0.00025)	ND (0.00025)	ND (0.013)	-	-	ND (0.013)	ND (0.012)	ND (0.00028)
Vinyl chloride	mg/kg	2	ND (0.00020)	ND (0.00020)	ND (0.010)	-	-	ND (0.010)	ND (0.0099)	ND (0.00022)
m,p-Xylene	mg/kg	170000	0.024	ND (0.00036)	0.0628	-	-	ND (0.019)	ND (0.018)	ND (0.00040)
o-Xylene	mg/kg	170000	0.0059	ND (0.00028)	0.0709	-	-	ND (0.014)	ND (0.014)	ND (0.00031)
Xylene (total)	mg/kg	170000	0.0299	ND (0.00028)	0.134	-	-	ND (0.014)	ND (0.014)	ND (0.00031)
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GC/MS Volatile TIC

Total TIC, Volatile	mg/kg	-	2.75 J	0	108.5 J	-	-	67.2 J	1.8 J	0
Total Alkanes	mg/kg	-	0.57 J	0	13 J	-	-	14.9 J	88.4 J	0

Table 4-1

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results at AOC 60 - Avenue B Tankfield

Client Sample ID:		NJ Non- Residential	ABTF-SS-1	ABTF-SS-2	ABTF-SS-3	ABTF-SS-3	ABTF-SS-3	ABTF-SS-4	ABTF-SS-5	ABTF-SS-6
Lab Sample ID:		Direct Contact	JB99248-2	JB99248-3	JB99248-4	JB99248-4R	JB99248-4RT	JB99248-5	JB99248-6	JB99248-7
Date Sampled:		Soil	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			3.0-3.5 ft	1.5-2.0 ft	2.0-2.5 ft	2.0-2.5 ft	2.0-2.5 ft	4.5-5.0 ft	4.5-5.0 ft	3.5-4.0 ft
GC Semi-volatiles (NJDEP EP	H)									
EPH (C9-C28)	mg/kg	-	-	-	-	1980	-	-	-	-
EPH (>C28-C40)	mg/kg	-	-	-	-	311	-	-	-	-
Total EPH (C9-C40)	mg/kg	-	-	-	-	2300	-	-	-	-
C10-C12 Aromatics	mg/kg	-	-	-	-	-	45.5	-	-	-
C12-C16 Aromatics	mg/kg	-	-	-	-	-	154	-	-	-
C16-C21 Aromatics	mg/kg	-	-	-	-	-	250	-	-	1
C21-C36 Aromatics	mg/kg	-	-	-	-	-	124	-	-	-
Total Aromatics	mg/kg	-	-	-	-	-	573	-	-	-
C9-C12 Aliphatics	mg/kg	-	-	-	_	-	267	-	-	-
C12-C16 Aliphatics	mg/kg	-	-	-	-	-	588	-	-	
C16-C21 Aliphatics	mg/kg	-	-	-	-	-	395	-	-	-
C21-C40 Aliphatics	mg/kg	-	-	-	-	-	333	-	-	
Total Aliphatics	mg/kg	-	-	-	-	-	1580	-	-	-
Total EPH	mg/kg	-	-	-	-	-	2160	-	-	-
Metals Analysis										
violato i titalijoto										
_ead	mg/kg	800	7.8	10.9	8.5	-	-	7.2	8	12.8
General Chemistry										
2										
Solids, Percent	%	-	84.9	83.9	88.6	-	-	89.8	87.8	80.5

All results in mg/kg unless otherw	rise noted.
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
а	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Client Sample ID:		NJ Non-	CPRR-SS-1	CPRR-SS-1	CPRR-SS-2	CPRR-SS-2	CPRR-SS-3	CPRR-SS-4	CPRR-SS-5
Lab Sample ID:		Residential Direct	JB98804-10	JB98804-10T	JB98804-11	JB98804-11R	JB98904-11	JB98904-10	JB98904-9
Date Sampled:		Contact Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
.,									
GC/MS Volatiles (SW846 8260	C)								
Acetone	mg/kg	NA	-	ND (0.0020)	-	0.0077 J	-	-	-
Benzene	mg/kg	5	-	ND (0.00012)	-	ND (0.00015)	-	-	-
Bromochloromethane	mg/kg	-		ND (0.00027)	-	ND (0.00035)		-	-
Bromodichloromethane	mg/kg	3		ND (0.00014)	-	ND (0.00018)		-	-
Bromoform	mg/kg	280		ND (0.00021)		ND (0.00027)	-		-
Bromomethane	mg/kg	59		ND (0.00032)	-	ND (0.00042)		-	-
2-Butanone (MEK)	mg/kg	44000	-	ND (0.0017)	-	ND (0.0022)	-	-	-
Carbon disulfide	mg/kg	110000	-	ND (0.00020)	-	ND (0.00026)	-	-	-
Carbon tetrachloride	mg/kg	2	-	ND (0.00020)	-	ND (0.00026)	-	-	-
Chlorobenzene	mg/kg	7400	-	ND (0.00014)	-	ND (0.00018)	-	-	-
Chloroethane	mg/kg	1100	-	ND (0.00043)	-	ND (0.00055)	-	-	-
2-Chloroethyl vinyl ether	mg/kg	-	-	-	-	-	-	-	-
Chloroform	mg/kg	2	-	ND (0.00013)	-	ND (0.00017)	-	-	-
Chloromethane	mg/kg	12	-	ND (0.00023)	-	ND (0.00030)	-	-	-
Cyclohexane	mg/kg	-	-	ND (0.00028)	-	ND (0.00036)	-	-	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	-	ND (0.00048)	-	ND (0.00062)	-	-	-
Dibromochloromethane	mg/kg	8	-	ND (0.00018)	-	ND (0.00023)	-	-	-
1,2-Dibromoethane	mg/kg	0.04	-	ND (0.00012)	-	ND (0.00015)	-	-	-
1,2-Dichlorobenzene	mg/kg	59000	-	ND (0.00011)	-	ND (0.00014)	-	-	-
1,3-Dichlorobenzene	mg/kg	59000	-	ND (0.00014)	-	ND (0.00018)	-	-	-
1,4-Dichlorobenzene	mg/kg	13		ND (0.00020)	-	ND (0.00026)		-	-
Dichlorodifluoromethane	mg/kg	230000	-	ND (0.00032)	-	ND (0.00041)	-	-	-
1,1-Dichloroethane	mg/kg	24	-	ND (0.00012)	-	ND (0.00016)	-	-	-
1,2-Dichloroethane	mg/kg	3	-	ND (0.00012)	-	ND (0.00015)	-	-	-
1,1-Dichloroethene	mg/kg	150	-	ND (0.00052)	-	ND (0.00068)	-	-	-
cis-1,2-Dichloroethene	mg/kg	560		ND (0.00069)	-	ND (0.00089)	-	-	-
trans-1,2-Dichloroethene	mg/kg	720		ND (0.00053)	-	ND (0.00068)	-	-	-
1,2-Dichloropropane	mg/kg	5	-	ND (0.00021)	-	ND (0.00027)	-	-	-
cis-1,3-Dichloropropene	mg/kg	7		ND (0.00010)	-	ND (0.00014)	-	-	-
trans-1,3-Dichloropropene	mg/kg	7		ND (0.00016)	-	ND (0.00020)	-	-	-
Ethylbenzene	mg/kg	110000		0.00015 J	-	ND (0.00019)	-	-	-
Freon 113	mg/kg	-	-	ND (0.00040)	-	ND (0.00051)	-	-	-
2-Hexanone	mg/kg	-		ND (0.0012)	-	ND (0.0015)	-	-	-
Isopropylbenzene	mg/kg	-		ND (0.000094)	-	ND (0.00012)	-	-	-
Methyl Acetate	mg/kg	NA	-	ND (0.00076)	-	ND (0.00099)	-	-	-
Methylcyclohexane	mg/kg	-		ND (0.00020)	-	ND (0.00026)	-	-	-
Methyl Tert Butyl Ether	mg/kg	320		ND (0.00014)	-	ND (0.00018)	-	-	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-	-	ND (0.00041)	-	ND (0.00053)		-	-
Methylene chloride	mg/kg	97	-	ND (0.00087)	-	0.0012 J	-	-	-
Styrene	mg/kg	260	-	ND (0.00016)	-	ND (0.00020)		-	-
Tert Butyl Alcohol	mg/kg	11000	-	-	-	ND (0.0031)	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	3	-	ND (0.00016)	-	ND (0.00020)	-	-	-
Tetrachloroethene	mg/kg	5	-	ND (0.00027)	-	ND (0.00034)	-	-	-
Toluene	mg/kg	91000	-	ND (0.00018)	-	0.00046 J	-	-	-
1,2,3-Trichlorobenzene	mg/kg	-	-	ND (0.00016)	-	ND (0.00020)	-	-	-
1,2,4-Trichlorobenzene	mg/kg	820	-	ND (0.00015)	-	ND (0.00019)	-	-	-
1,1,1-Trichloroethane	mg/kg	4200	-	ND (0.00013)	-	ND (0.00017)	-	-	-
1,1,2-Trichloroethane	mg/kg	6	-	ND (0.00013)		ND (0.00017)	-	-	-
Trichloroethene	mg/kg	20	-	ND (0.00013)		ND (0.00017)	-	-	-
Trichlorofluoromethane	mg/kg	340000	-	ND (0.00022)	-	ND (0.00029)	-	-	-
Vinyl chloride	mg/kg	2	-	ND (0.00017)	-	ND (0.00023)	-	-	-
m,p-Xylene	mg/kg	170000	-	0.00037 J		ND (0.00040)	-	-	-
o-Xylene	mg/kg	170000	-	ND (0.00024)	-	ND (0.00031)	-	-	-
Xylene (total)	mg/kg	170000	-	0.00037 J	-	ND (0.00031)	-	-	-
GC/MS Volatiles (SW846 8260	U)								
Total TIC, Volatile	mg/kg	-	-	0	-	0		-	-
									i

Client Sample ID:		NJ Non-	CPRR-SS-1	CPRR-SS-1	CPRR-SS-2	CPRR-SS-2	CPRR-SS-3	CPRR-SS-4	CPRR-SS-5
Lab Sample ID:		Residential Direct	JB98804-10	JB98804-10T	JB98804-11	JB98804-11R	JB98904-11	JB98904-10	JB98904-9
Date Sampled:		Contact Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				0.0 1.0 1.0			0.0 1.0 1.0	0.0 1.0 1.	
GC/MS Semi-volatiles (SW846	8270D)								
2-Chlorophenol	mg/kg	-	-	ND (0.071)	-	ND (0.069)	-	-	-
4-Chloro-3-methyl phenol	mg/kg	-		ND (0.18)		ND (0.17)			-
2,4-Dichlorophenol	mg/kg	2100		ND (0.18)	-	ND (0.17)		-	-
2,4-Dimethylphenol	mg/kg	14000		ND (0.18)	-	ND (0.17)		-	-
2,4-Dinitrophenol	mg/kg	1400	-	ND (0.18)	-	ND (0.17)	-	-	-
4,6-Dinitro-o-cresol 2-Methylphenol	mg/kg	68 3400	-	ND (0.18) ND (0.071)	-	ND (0.17) ND (0.069)		-	-
2-Methylphenol	mg/kg	3400	-	ND (0.071) ND (0.071)	-	ND (0.069) ND (0.069)		-	-
	mg/kg	-		ND (0.071)	-	ND (0.069)	•	•	-
2-Nitrophenol 4-Nitrophenol	mg/kg mg/kg	-		ND (0.16) ND (0.35)	-	ND (0.17)	-		-
Pentachlorophenol	mg/kg	10		ND (0.33)	-	ND (0.34)	- :		- :
Phenol	mg/kg	210000		ND (0.071)	-	ND (0.069)	-	-	-
2,3,4,6-Tetrachlorophenol	mg/kg	-		ND (0.18)	-	ND (0.17)	-	-	-
2,4,5-Trichlorophenol	mg/kg	68000		ND (0.18)	-	ND (0.17)	-	-	-
2,4,6-Trichlorophenol	mg/kg	74		ND (0.18)	-	ND (0.17)	-	-	-
Acenaphthene	mg/kg	37000	ND (0.036)	ND (0.035)	ND (0.034)	ND (0.034)	ND (0.039)	ND (0.034)	ND (0.034)
Acenaphthylene	mg/kg	300000	0.0442	0.0179 J	0.34	0.34	ND (0.039)	ND (0.034)	ND (0.034)
Acetophenone	mg/kg	5	-	ND (0.18)	-	ND (0.17)	-	-	-
Anthracene	mg/kg	30000	0.0389	0.0187 J	0.234	0.234	ND (0.039)	ND (0.034)	ND (0.034)
Atrazine	mg/kg	2400		ND (0.071)	-	ND (0.069)	-		-
Benzo(a)anthracene	mg/kg	2	0.117	0.0584	0.8	0.8	ND (0.039)	0.0175 J	ND (0.034)
Benzo(a)pyrene	mg/kg	0.2	0.113	0.0578	0.822	0.822	ND (0.039)	ND (0.034)	ND (0.034)
Benzo(b)fluoranthene	mg/kg	2	0.221	0.106	1.81	1.81	ND (0.039)	0.0166 J	ND (0.034)
Benzo(g,h,i)perylene	mg/kg	30000	0.0843	0.0522	0.668	0.668	ND (0.039)	ND (0.034)	ND (0.034)
Benzo(k)fluoranthene	mg/kg	23	0.078	0.0427	0.536	0.536	ND (0.039)	ND (0.034)	ND (0.034)
4-Bromophenyl phenyl ether	mg/kg	-	<u> </u>	ND (0.071)	-	ND (0.069)	•	-	-
Butyl benzyl phthalate	mg/kg	14000 34000		ND (0.071)		ND (0.069)	-	-	-
1,1'-Biphenyl Benzaldehyde	mg/kg	68000	<u> </u>	ND (0.071) ND (0.18)	-	ND (0.069) ND (0.17)	-		-
2-Chloronaphthalene	mg/kg mg/kg	-		ND (0.16) ND (0.071)	-	ND (0.17)			-
4-Chloroaniline	mg/kg			ND (0.071)		ND (0.009)			
Carbazole	mg/kg	96		ND (0.071)		0.0671 J			-
Caprolactam	mg/kg	340000		ND (0.071)		ND (0.069)			
Chrysene	mg/kg	230	0.157	0.0805	1.1	1.1	ND (0.039)	0.0154 J	ND (0.034)
bis(2-Chloroethoxy)methane	mg/kg	-		ND (0.071)		ND (0.069)	-	-	-
bis(2-Chloroethyl)ether	mg/kg	2		ND (0.071)	-	ND (0.069)		-	-
bis(2-Chloroisopropyl)ether	mg/kg	67		ND (0.071)	-	ND (0.069)		-	-
4-Chlorophenyl phenyl ether	mg/kg	-		ND (0.071)	-	ND (0.069)	-	-	-
2,4-Dinitrotoluene	mg/kg	3		ND (0.035)	-	ND (0.034)		-	-
2,6-Dinitrotoluene	mg/kg	3	•	ND (0.035)		ND (0.034)			-
3,3'-Dichlorobenzidine	mg/kg	4	•	ND (0.071)	-	ND (0.069)	-	-	-
1,4-Dioxane	mg/kg	-		ND (0.035)	-	ND (0.034)	-	-	-
Dibenzo(a,h)anthracene	mg/kg	0.2	0.0257 J	0.0149 J	0.167	0.167	ND (0.039)	ND (0.034)	ND (0.034)
Dibenzofuran	mg/kg	-	-	ND (0.071)	-	ND (0.069)	-	-	-
Di-n-butyl phthalate	mg/kg	68000	<u> </u>	ND (0.071)	-	ND (0.069) ND (0.069)		-	-
Di-n-octyl phthalate Diethyl phthalate	mg/kg	27000 550000		ND (0.071) ND (0.071)	-	ND (0.069) ND (0.069)	-	-	-
Dietnyi pritralate Dimethyl phthalate	mg/kg mg/kg	550000		ND (0.071) ND (0.071)	-	ND (0.069) ND (0.069)			-
bis(2-Ethylhexyl)phthalate	mg/kg mg/kg	140		ND (0.071) ND (0.071)	-	ND (0.069)	-	-	-
Fluoranthene	mg/kg	24000	0.181	0.0964	1.08	1.08	ND (0.039)	0.0265 J	ND (0.034)
Fluorene	mg/kg	24000	ND (0.036)	ND (0.035)	ND (0.034)	ND (0.034)	ND (0.039)	ND (0.034)	ND (0.034)
Hexachlorobenzene	ma/ka	1	ND (0.030)	ND (0.033)	ND (0.034)	ND (0.069)	- IND (0.039)	ND (0.034)	ND (0.034)
Hexachlorobutadiene	mg/kg	25		ND (0.035)	-	ND (0.034)		-	-
Hexachlorocyclopentadiene	mg/kg	110		ND (0.35)	-	ND (0.34)		-	-
Hexachloroethane	mg/kg	140		ND (0.18)	-	ND (0.17)	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	2	0.0931	0.0635	0.766	0.766	ND (0.039)	ND (0.034)	ND (0.034)
sophorone	mg/kg	2000	-	ND (0.071)	-	ND (0.069)	-	-	-
2-Methylnaphthalene	mg/kg	2400		ND (0.071)	-	ND (0.069)		-	-
2-Nitroaniline	mg/kg	23000		ND (0.18)	-	ND (0.17)		-	-
3-Nitroaniline	mg/kg	-	-	ND (0.18)	-	ND (0.17)	-	-	-
4-Nitroaniline	mg/kg	-	-	ND (0.18)	-	ND (0.17)	-	-	-
Naphthalene	mg/kg	17	ND (0.036)	ND (0.035)	ND (0.034)	ND (0.034)	ND (0.039)	ND (0.034)	ND (0.034)
Nitrobenzene	mg/kg	340	•	ND (0.071)	-	ND (0.069)	-	-	-
N-Nitroso-di-n-propylamine	mg/kg	0.3		ND (0.071)	-	ND (0.069)	-	-	-
N-Nitrosodiphenylamine	mg/kg	390		ND (0.18)	-	ND (0.17)	-	-	-
Phenanthrene	mg/kg	300000	0.0242 J	ND (0.035)	0.117	0.117	ND (0.039)	0.0181 J	ND (0.034)
Pyrene	mg/kg	18000	0.24	0.106 ND (0.18)	1.27	1.27 ND (0.17)	ND (0.039)	0.0266 J	ND (0.034)

Table 4-1

FHess Corporation - Former Port Reading Complex (HC-PR)

750 Cliff Road, Port Reading, New Jersey

Summary of Soil Analytical Results at AOC-62 – Inactive Railroad Spur (Between Canning Plant and QC Lab)

Client Sample ID:		MINE	CPRR-SS-1	CPRR-SS-1	CPRR-SS-2	CPRR-SS-2	CPRR-SS-3	CPRR-SS-4	CPRR-SS-5
Lab Sample ID:		NJ Non- Residential Direct	JB98804-10	JB98804-10T	JB98804-11	JB98804-11R	JB98904-11	JB98904-10	JB98904-9
Date Sampled:		Contact Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft	0.5-1.0 ft
				•				•	
GC/MS Semi-volatile TIC									
Total TIC, Semi-Volatile	mg/kg	-	-	0.86 J	-	4.31 J	-	-	-
Total Alkanes	mg/kg	-		0	-	0	-	-	-
GC Semi-volatiles (NJDEP E	EPH)								
EPH (C9-C28)	mg/kg	-	ND (4.6)	-	20.3	-	ND (5.1)	ND (4.6)	ND (4.4)
EPH (>C28-C40)	mg/kg	-	29.8	-	53.2	-	ND (5.1)	ND (4.6)	9.65
Total EPH (C9-C40)	mg/kg	-	29.8	-	73.4	-	ND (5.1)	ND (4.6)	9.65
20.0	0004;								
GC Semi-volatiles (SW846 8	082A)								
roclor 1016	mg/kg	1	ND (0.011)	-	ND (0.011)	-	ND (0.013)	ND (0.012)	ND (0.011)
Aroclor 1221	mg/kg	1	ND (0.021)	-	ND (0.021)	-	ND (0.024)	ND (0.021)	ND (0.020)
Aroclor 1232	mg/kg	1	ND (0.012)	-	ND (0.012)	-	ND (0.013)	ND (0.012)	ND (0.011)
Aroclor 1242	mg/kg	1	ND (0.016)	-	ND (0.016)	-	ND (0.018)	ND (0.016)	ND (0.016)
Aroclor 1248	mg/kg	1	ND (0.011)	-	ND (0.011)	-	ND (0.012)	ND (0.011)	ND (0.011)
Aroclor 1254 Aroclor 1260	mg/kg	1	ND (0.016) ND (0.015)		ND (0.016) ND (0.015)		ND (0.018) ND (0.017)	ND (0.016) ND (0.015)	ND (0.015) ND (0.015)
410001 1200	mg/kg								ND (0.013)
Aradar 1269	ma/ka								
	mg/kg mg/kg	1	ND (0.011) ND (0.010)	-	ND (0.011) ND (0.0099)	-	ND (0.012) ND (0.011)	ND (0.011) ND (0.010)	ND (0.011)
			. ,		, ,		, ,	. ,	. ,
Aroclor 1262			. ,		, ,		, ,	. ,	. ,
Aroclor 1268 Aroclor 1262 Metals Analysis	mg/kg	1	ND (0.010)	-	ND (0.0099)	-	ND (0.011)	ND (0.010)	ND (0.0097)
Aroclor 1262 Metals Analysis Aluminum	mg/kg	1 NA	ND (0.010)		ND (0.0099)		ND (0.011)	ND (0.010)	ND (0.0097)
Aroclor 1262 Metals Analysis Aluminum Antimony	mg/kg mg/kg mg/kg	NA 450	ND (0.010) 14700 <2.2	-	ND (0.0099) 16100 <2.0	-	ND (0.011) 2550 <2.4	ND (0.010) 3500 <2.2	ND (0.0097) 4090 <2.1
Aroclor 1262 Metals Analysis Aluminum Antimony Arsenic	mg/kg mg/kg mg/kg mg/kg	NA 450 19	ND (0.010) 14700 <2.2 5.8		ND (0.0099) 16100 <2.0 <2.0	-	2550 <2.4 6	ND (0.010) 3500 <2.2 13.7	ND (0.0097) 4090 <2.1 7
Aroclor 1262 Metals Analysis Aluminum Antimony Arsenic Barium	mg/kg mg/kg mg/kg mg/kg mg/kg	NA 450 19 59000	ND (0.010) 14700 <2.2 5.8 83.4	-	ND (0.0099) 16100 <2.0 <2.0 24.8	-	2550 <2.4 6 <24	ND (0.010) 3500 <2.2 13.7 30.2	ND (0.0097) 4090 <2.1 7 <21
Aroclor 1262 Metals Analysis Aluminum Antimony Arsenic Barrium Beryllium	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NA 450 19 59000 140	ND (0.010) 14700 <2.2 5.8 83.4 0.87	-	ND (0.0099) 16100 <2.0 <2.0 24.8 0.21	-	ND (0.011) 2550 <2.4 6 <24 0.25	3500 <2.2 13.7 30.2 0.46	ND (0.0097) 4090 <2.1 7 <21 0.29
Aroclor 1262 Metals Analysis Aluminum Antimony Arsenic Barrium Beryllium Cadmium	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NA 450 19 59000	ND (0.010) 14700 <2.2 5.8 83.4		ND (0.0099) 16100 <2.0 <2.0 24.8	-	2550 <2.4 6 <24	ND (0.010) 3500 <2.2 13.7 30.2	ND (0.0097) 4090 <2.1 7 <21
Aroclor 1262 Metals Analysis Aluminum Antimony Arsenic Barium Beryllium	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NA 450 19 59000 1440 78	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55	-	ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51	-	2550 <2.4 6 <24 0.25 <0.59	3500 <2.2 13.7 30.2 0.46 <0.54	ND (0.0097 4090 <2.1 7 <21 0.29 <0.52
Aroclor 1262 Metals Analysis Alluminum Antimony Avsenic Barium Beryllium Cadmium Calcium	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NA 450 19 59000 140 78 -	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000	-	ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14800	-	ND (0.011) 2550 42.4 6 424 0.25 40.59 4590	3500 <2.2 13.7 30.2 0.46 <0.54 <540	ND (0.0097) 4090 <2.1 7 <21 0.29 <0.52 <520
Arciclor 1262 Metals Analysis Numinum Antimony Arsenic Barium Beryllium Calcium Calcium Chromium Chromium	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NA 450 19 59000 140 78 -	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7	-	ND (0.0099) 16100 <2.0 24.8 0.21 -0.51 14800 14.6	-	2550 <2.4 6 <2.4 0.25 <0.59 <590 9.2	3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3	ND (0.0097 4090 <2.1 7 <21 0.29 <0.52 <520 13.8
Arcolor 1262 Metals Analysis Aluminum Antimony Avsenic Barrium Beryllium Cadmium Calcium Chromium Chromium	mg/kg	1 NA 450 19 59000 140 78 590 45000	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000	-	ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400	-	2550 <2.4 6 <24 0.25 <0.59 <590 9.2 <5.9 5.2 15300	3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4	ND (0.0097) 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2
Aroclor 1262 Metals Analysis Aluminum Antimony Avsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper	mg/kg	NA 450 19 59000 140 78 - 590	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1	-	ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400 21.4	-	2550 22.4 6 24 0.25 <0.59 9.2 <5.9 5.2 15300 4.2	3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <6.4 17.5 24700 11.3	ND (0.0097 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3
Arcider 1262 Afetals Analysis Numinum Nutimony Visenic Barium Beryllium Zadmium Zaldium Zhobalt Copper Toron Lead	mg/kg	1 NA 450 19 59000 140 - 590 45000 - 8000	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200	-	ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400	-	ND (0.011) 2550 224 6 224 0.25 <0.59 <590 9.2 5.2 15300 4.2 984	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <564 17.5 24700 11.3 1590	ND (0.0097 4090 4090 42.1 7 421 0.29 40.52 4520 13.8 45.2 15 20600 12.3 1510
Aroclor 1262 Metals Analysis Aluminum Antimony Assenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper ron .e.ad Magnesium Manganese	mg/kg	1 NA 450 19 59000 140 - 5900 5900	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200 567		ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14890 14.6 14.1 94 23400 21.4 9820 370	-	2550 <2.4 6 <24 0.25 <590 9.2 <5.9 5.2 15300 4.2 984 62.6	3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8	ND (0.0097 4090 42.1 7 421 0.29 40.52 4520 13.8 45.2 1510 90.4
Aroclor 1262 Metals Analysis Numinum Antimony Arsenic Sarium Beryllium Calolium Chromium Chromium Chromium Choalt Copper Tron Lead Magnesium Manganese Mercury	mg/kg	NA 450 19 59000 140 78	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200 567 0.043	-	ND (0.0099) 16100 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031	-	2550	3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034	ND (0.0097 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 <0.034
Audinium Autonium Aut	mg/kg	1 NA 450 19 59000 140 78 5900 45000 - 5900 65 23000	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200 567 0.043 24		ND (0.0099) 16100 <2.0 <2.0 <2.0 24.8 0.21 -0.51 14800 14.6 14.1 94 23400 21.4 9820 370 -0.031 33.9		ND (0.011) 2550 2524 6 224 0.25 -0.59 -5.9 5.2 15300 4.2 984 62.6 -(0.037 7.4	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3	ND (0.0097 4090 4090 4091 7 42.1 7 421 0.29 40.52 4520 13.8 45.2 15 20600 12.3 1510 90.4 40.034 10.2
Arcolor 1262 Metals Analysis Muminum Antimony Avsenic Barium Beryllium Calcium Chromium Cobalt Copper ron Lead Manganesium Manganese Mercury Mickel Votassium	mg/kg	1 NA 450 19 59000 140 78 - 590 45000 - 5900 65 23000	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10220 567 0.043 24 1480		ND (0.0099) 16100 <2.0 <2.0 <2.0 24.8 0.21 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000	-	2550 2550 22.4 6 6 <2.4 0.25 <0.59 <590 9.2 <5.9 5.2 115300 4.2 984 62.6 <0.037 7.4 <1200	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100	ND (0.0097 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 <0.034 10.2 <1000
Aroclor 1262 Metals Analysis Aluminum Antimony Assenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Tron Lead Magnesium Manganese Mercury lickel	mg/kg	1 NA 450 19 59000 1440 78	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200 567 0.043 24 1480 <2.2		ND (0.0099) 18100 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0	-	2550 22.4 6 6 <2.4 0.25 <0.59 <590 9.2 <5.9 15300 4.2 984 62.6 <0.037 7.4 <1200 <2.4	3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2	ND (0.0097 4090 42.1 7 421 0.29 40.52 <520 13.8 45.2 520 12.3 1510 90.4 40.034 10.2 41000 42.1
Audinium Aud	mg/kg	NA 450 19 59000 140 78	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200 567 0.043 24 1480 42.2 0.66	-	ND (0.0099) 16100 <2.0 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69		ND (0.011) 2550 42.4 6 42.4 0.25 40.59 45.9 5.2 15300 4.2 984 62.6 62.6 4.0,037 7.4 41200 42.4 40.59	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54	ND (0.0097 4090 <2.1 7 <2.1 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 <0.034 10.2 <1000 <2.1 <0.52
Aroclor 1262 Metals Analysis Aluminum Antimony Arsenic Barium Beryllium Calcium Chromium Cobalt Copper ron Lead Magnesium Manganese Mercury Wickel Potassium Selenium Selenium Selenium Selenium Selenium Selenium Selenium Sodium	mg/kg	NA 450 19 59000 140 78 590 45000 - 800 - 5900 65 23000 - 5700	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 567 0.043 24 1480 <2.2 4.66 <1100		ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69 1560	-	2550 2550 2550 224 6 424 0.25 <0.59 <590 9.2 5.2 15300 4.2 984 62.6 <0.037 7.4 <1200 <2.4 <0.59 <1200	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54 <1100	ND (0.0097) 4090 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 <0.034 <0.034 <10.02 <1000 <2.1 <0.52 <1000 <2.1 <0.52 <1000 <2.1 <0.052 <1000 <2.1 <0.052 <1000 <2.1 <0.052 <1000
Aroclor 1262 Metals Analysis Aluminum Antimony Avsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Fron Lead Magnesium Manganese Mercury Vickel Fortassium Selenium Selenium Selenium Selenium Selenium Selenium	mg/kg	1 NA 450 19 59000 1440 78 - 590 45000 - 5900 65 23000 - 5700 5700 5700	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10220 567 0.043 24 1480 <2.2 0.66 <1100 -		ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69 1560		2550 22.4 6 3.24 0.25 4.24 0.25 4.59 4.59 4.59 4.59 4.2 15300 4.2 984 62.6 4.0.37 7.4 4.1200 4.2 4.2 4.5.9 4.2 4.2 6.5.9 4.2 6.6 4.0.37 7.4 6.6 6.6 6.0.37 7.4 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54 <1100 -	ND (0.0097) 4090 <2.1 7 <21 0.29 <0.52 <5520 13.8 <5.2 15 20600 12.3 1510 90.4 <0.034 10.2 <1000 <2.1 <0.52 <1000 -
Aroclor 1262 Metals Analysis Aluminum Antimony Assenic Sarium Beryllium Cadinium Chromium Chromium Chromium Choalt Copper Ton Lead Magnesium Manganese Mercury Mickel Potassium Selenium Selenium Siliver Sodium Sulfur Thallium	mg/kg	NA 450 19 59000 140 78	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200 567 0.043 24 1480 <2.2 0.66 <1100 <1.1		ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69 1560 - <1.0		ND (0.011) 2550 <24 6 <24 6 <24 0.25 <0.59 <590 9.2 5.2 15300 4.2 984 62.6 60.037 7.4 <1200 <24 <0.59 <1200 .	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54 <1100 <1.1	ND (0.0097 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 <0.034 10.2 <1000 <2.1 <0.52 <1000 <1.000
Aroclor 1262 Metals Analysis Muminum Antimony Avsenic Beryllium Beryllium Beryllium Calcium Chromium Cobalt Copper Fron Lead Aagnesium Aanganese Afercury Lickel Potassium Selenium Selenium Selenium Selenium Jiliker Sodium Jiliker	mg/kg	1 NA 450 19 59000 140 78 5900 65900 5700 5700 579 11100	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 567 0.043 24 1480 <2.2 0.66 <1100 - <1.1 32.9		ND (0.0099) 16100 <2.0 <2.0 <2.0 24.8 0.21 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69 1560 - <1.0 51		ND (0.011) 2550 224 6 <224 0.25 <0.59 <590 9.2 <5,9 5.2 15300 4.2 984 62.6 <0.037 7.4 <1200 <2.4 <0.59 <1200 - <1.2 15.2	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <544 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54 <1100 - <1.1 23.5	ND (0.0097 4090 4090 42.1 7 421 0.29 40.52 4520 13.8 45.2 15 206000 12.3 1510 90.4 40.034 10.2 41000 42.1 40.52 41000 - 41.0 15.9
Aroclor 1262 Metals Analysis Aluminum Antimony Avsenic Barium Beryllium Calcium Chromium Cobalt Copper ron Lead Magnesium	mg/kg	NA 450 19 59000 140 78	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 30.1 10200 567 0.043 24 1480 <2.2 0.66 <1100 <1.1		ND (0.0099) 16100 <2.0 <2.0 24.8 0.21 <0.51 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69 1560 - <1.0		ND (0.011) 2550 <24 6 <24 6 <24 0.25 <0.59 <590 9.2 5.2 15300 4.2 984 62.6 60.037 7.4 <1200 <24 <0.59 <1200 .	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <5.4 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54 <1100 <1.1	ND (0.0097) 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 4000 <2.1 <1000 <2.1 <0.52 <1000 <1.0 <1.0
Arctor 1262 Arctals Analysis Muminum Antimony Avsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Tron Lead Alagnesium Alanganese Alercury Lickel Belenium Belenium Belenium Calcium Calcium Chromium Cobalt Copper Tron Lead Alagnesium Alanganese Alercury Lickel Codium Calcium Calci	mg/kg	1 NA 450 19 59000 140 78 5900 65900 5700 5700 579 11100	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 567 0.043 24 1480 <2.2 0.66 <1100 - <1.1 32.9		ND (0.0099) 16100 <2.0 <2.0 <2.0 24.8 0.21 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69 1560 - <1.0 51		ND (0.011) 2550 224 6 <224 0.25 <0.59 <590 9.2 <5,9 5.2 15300 4.2 984 62.6 <0.037 7.4 <1200 <2.4 <0.59 <1200 - <1.2 15.2	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <544 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54 <1100 - <1.1 23.5	ND (0.0097 4090 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 10.2 <1000 <2.1 <0.52 <1000 <1000 <1000 <1000 <11.0 <15.0 <15.0 <15.0 <15.0 <16.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <p< td=""></p<>
Aroclor 1262 Metals Analysis Aluminum Antimony Arsenic Barrium Beryllium Calcium Chromium Cobalt Copper ron Lead Magnesium Manganese Mercury Vickel Potassium Selenlium Selenlium Silvier Sodium Jinatium Ji	mg/kg	1 NA 450 19 59000 140 78 5900 65900 5700 5700 579 11100	ND (0.010) 14700 <2.2 5.8 83.4 0.87 <0.55 24000 19.7 9.4 47.9 20000 567 0.043 24 1480 <2.2 0.66 <1100 - <1.1 32.9		ND (0.0099) 16100 <2.0 <2.0 <2.0 24.8 0.21 14800 14.6 14.1 94 23400 21.4 9820 370 <0.031 33.9 <1000 <2.0 0.69 1560 - <1.0 51		ND (0.011) 2550 224 6 <224 0.25 <0.59 <590 9.2 <5,9 5.2 15300 4.2 984 62.6 <0.037 7.4 <1200 <2.4 <0.59 <1200 - <1.2 15.2	ND (0.010) 3500 <2.2 13.7 30.2 0.46 <0.54 <540 12.3 <544 17.5 24700 11.3 1590 93.8 <0.034 10.3 <1100 <2.2 <0.54 <1100 - <1.1 23.5	ND (0.0097 4090 4090 <2.1 7 <21 0.29 <0.52 <520 13.8 <5.2 15 20600 12.3 1510 90.4 10.2 <1000 <2.1 <0.52 <1000 <1000 <1000 <1000 <11.0 <15.0 <15.0 <15.0 <15.0 <16.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <17.0 <p< td=""></p<>

All results in mg/kg unless otherwise noted.

milligrams per kilogram
Estimated Value
Not Sampled
Not Detected mg/kg J NS ND NA () B Not Analyzed Method Detection Limit

wemon Detection Limit
Compound Found in Blank
Health based standard defaults to soil saturation limit
Result is from 2nd run
Result is from 2nd run

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 63 - Former Rail Lines (Vacant Land North)

		NJ Non-	VLRR-SS-1	VLRR-SS-2	VII DD 00 0	\// PD 00	-4 VLRR-SS-5	VLRR-SS-6	W DD 00 7	VLRR-SS-8	VLRR-SS-9	VLRR-SS-9	VLRR-SS-10	VLRR-SS-11	VII DD 00 4	2 VLRR-SS-12	VLRR-SS-14	VLRR-SS-15	VLRR-SS-16	VLRR-SS-17	VLRR-SS-18	VLRR-SS-19	W DD 00 40	VLRR-SS-20	\// DD 00 04	VII DD 00 00	VLRR-SS-23	VLRR-SS-24	\" DD 00 05	VI DD 00 00	VLRR-SS-27	VII DD 00 00
Client Sample ID:		Residential Direct Contact	(2.0-2.5)	(3.5-4.0)	(1.5-2.0)	(2.5-3.0)	(2.0-2.5)	(1.75-2.25)	(4.5-5.0)	(2.0-2.5)	(2.5-3.0)	(6.5-7.0)	(3.0-3.5)	(2.5-3.0)	(2.5-3.0)	(3.75-4.25)	(2.0-2.5)	(2.5-3.0)	(1.5-2.0)	(4.0-4.5)	(4.0-4.5)	(4.0-4.5)	(5.5-6.0)	(2.5-3.0)	(5.25-5.75)	(1.5-2.0)	(2.5-3.0)	(4.5-5.0)	VLRR-SS-25 (3.0-3.5)	(4.0-4.5)	(3.0-3.5)	(2.75-3.25)
Lab Sample ID:							-2 JB74588-3																									
Date Sampled: Matrix:		26D 6/08)		8/18/2014 Soil		8/19/2014 Soil	4 8/19/2014 Soil			8/20/2014 Soil						8/19/2014 Soil			8/21/2014 Soil		8/20/2014 Soil			8/20/2014 Soil			8/21/2014 Soil	8/21/2014 Soil	8/21/2014 Soil		8/21/2014 Soil	
Semi-Volatile Organic Compou	ınds																															
Acenaphthene	mg/kg	37,000	ND (0.011)	ND (0.010)	ND (0.011)	ND (0.010	0) ND (0.011)	ND (0.0096	ND (0.011)	ND (0.011)	ND (0.010)	ND (0.012)	ND (0.011)	0.829	0.824	0.279	0.276	ND (0.010)	ND (0.010)	2.26	0.22	1.07	0.173	0.0815	ND (0.011)	0.165	1.23	ND (0.011)	0.0762	1.7	0.0287 J	ND (0.011)
Acenaphthylene	mg/kg			0.0308 J	0.0399	0.0626		(0.0)		ND (0.012)	(, , ,	ND (0.013)		0.166	ND (0.011)		0.0230 J	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.012)	ND (0.011)		ND (0.011)	ND (0.012)			ND (0.012)	ND (0.011)		ND (0.011)	
Anthracene Benzo(a)anthracene	mg/kg mg/kg		0.0196 J 0.0177 J		0.09	0.0835		0.0173 J	0.165	ND (0.013)	ND (0.012) ND (0.011)	ND (0.014)	ND (0.013)	1.05 1.53	1.1	0.476	0.539	ND (0.012)	ND (0.012) 0.0163 J	0.725	0.216 0.19	0.37 0.118	0.0725 0.0488 J	ND (0.012) 0.0429	0.0254 J 0.0401	0.208 0.159	ND (0.012) 0.139	ND (0.014) ND (0.013)	0.0647 0.118	1.93 1.4	0.0388 0.0326 J	0.0227 J 0.0371 J
Benzo(a)pyrene	mg/kg		ND (0.011)		0.0376	0.0638		0.02733	0.0615	ND (0.012)	ND (0.011)	ND (0.013)	()	0.844	0.809	0.286	0.844	ND (0.011)		0.0303 J	0.132	0.0533	0.0269 J		0.0340 J	0.139	0.0864	ND (0.013)	0.0924	0.901	0.0320 J	0.03713
Benzo(b)fluoranthene	mg/kg		0.0428		0.107	0.171	0.505	0.042	0.2	ND (0.013)	ND (0.012)	ND (0.013)	0.0206 J	1.8	0.563	0.21	1.05	ND (0.012)		0.0431	0.101	0.0715	0.0725		0.0422	0.101	0.0557	ND (0.013)	0.0713	0.612	0.0240 J	
Benzo(g,h,i)perylene Benzo(k)fluoranthene	mg/kg		0.0155 J	0.0527 0.0232 J	0.0351 J 0.0298 J	0.0594		0.0428 ND (0.012)	0.0559	ND (0.014)	ND (0.013)	ND (0.015)	ND (0.014)	0.477	0.299	0.108 0.0417	0.397	ND (0.013)		0.0155 J 0.0176 J	0.0561 0.0299 J	0.0244 J 0.0272 J	ND (0.018)	0.0167 J ND (0.013)	0.0235 J ND (0.015)	0.049 0.0176 J	0.0419 0.0217 J	ND (0.014) ND (0.015)	0.0499 0.0190 J	0.341	0.0154 J	0.0218 J ND (0.015)
Chrysene	mg/kg mg/kg		0.0437	0.0000	0.0298 J 0.129	0.0602	0.157	0.0406	0.0553	ND (0.014)	ND (0.013)	ND (0.015)	(0.0)	2.27	1.31	0.0417	1.11	ND (0.013)	0.0182 J	0.0176 J	0.0299 J	0.02723	0.0249 J	0.0618	0.0526	0.0176 3	0.0217 J	ND (0.013)	0.01903	1.8	0.0448	0.0545
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.012)	ND (0.012)	ND (0.012)	0.0200 J	J ND (0.013)	ND (0.011)	0.0198 J	ND (0.013)	ND (0.012)	ND (0.014)	ND (0.013)	0.184	0.114	0.0427	0.143	ND (0.012)		ND (0.011)	ND (0.013)	0.0166 J	ND (0.012)	ND (0.013)	0.0193 J	0.12	ND (0.012)	ND (0.013)				
Fluoranthene	mg/kg		0.039		0.13	0.166	0.575	0.0347	0.44	ND (0.017)	ND (0.015)	ND (0.018)	0.0204 J	2.38	1.52	0.568	2.47	ND (0.015)	0.0173 J	0.777	0.394	0.522	0.193	0.136	0.0883	0.342	0.181	ND (0.017)	0.236	2.72	0.0949	0.0442
Fluorene Indeno(1,2,3-cd)pyrene	mg/kg mg/kg	24,000	ND (0.012) 0.0162 J	ND (0.012) 0.0343 J	0.0141 J 0.0309 J	ND (0.012 0.0525	2) ND (0.013) 0.169	ND (0.011) 0.0320 J	0.0222 J 0.0623	ND (0.012) ND (0.013)	ND (0.011) ND (0.012)	ND (0.013)	ND (0.012) ND (0.013)	0.482	1.32 0.273	0.484	0.261 0.481	ND (0.011) ND (0.012)	ND (0.012) ND (0.012)	2.16 0.0142 J	0.163 0.0422	1.15 0.0218 J	0.14 0.0286 J	0.0582 0.0164 J	ND (0.013) 0.0282 J	0.245 0.0386	1.62 0.0287 J	ND (0.013) ND (0.014)	ND (0.012) 0.0373	2.21 0.265	ND (0.012) ND (0.012)	ND (0.013) 0.0183 J
Naphthalene	mg/kg	17	0.0300 J		0.109	0.0738		ND (0.0090)		ND (0.010)	ND (0.0095)	ND (0.011)	ND (0.010)	0.195	1.93	0.214	0.232	ND (0.0095)		ND (0.0097)		ND (0.0093)	0.147	ND (0.0092)	ND (0.011)	0.0250 J	0.518	ND (0.011)	ND (0.0098)	0.0808	ND (0.0096)	
Phenanthrene	mg/kg		0.0549		0.186	0.165		0.0444				ND (0.018)		1.18	5.81	2.15	2	ND (0.016)	()	5.76	0.597	3.05	0.373	0.0485	0.0497	0.893	5.08	ND (0.018)	0.0527	5.83	ND (0.016)	0.0235 J
Pyrene	mg/kg	18,000	0.0308 J	0.116	0.13	0.197	0.482	0.0477	0.326	ND (0.014)	ND (0.013)	ND (0.015)	0.0210 J	3.46	2.71	1.14	2.18	ND (0.013)	0.0208 J	0.494	0.45	0.406	0.0812	0.0981	0.062	0.427	0.547	ND (0.015)	0.263	3.34	0.066	0.0525
Polychlorinated Biphenyls																																
Aroclor 1016	mg/kg			ND (0.0096) ND (0.022)			(9) ND (0.0094)	ND (0.0083)			ND (0.0088) ND (0.020)			ND (0.011)		ND (0.012)	ND (0.0089)	ND (0.0084)			ND (0.0092)	ND (0.0086) ND (0.020)	ND (0.014)		ND (0.0099) ND (0.023)				ND (0.0083)	(,	ND (0.0097) ND (0.022)	
Aroclor 1221 Aroclor 1232	mg/kg mg/kg			ND (0.022)		ND (0.021		ND (0.019)	(0.02.)	ND (0.021)	ND (0.020)	ND (0.024)	ND (0.021)	ND (0.026)	ND (0.022) ND (0.019)		ND (0.021)	ND (0.019)	ND (0.020)	ND (0.023)	ND (0.021) ND (0.018)	ND (0.020)	ND (0.032)	(0.020)	ND (0.023)	ND (0.021)	ND (0.019)	ND (0.024) ND (0.020)	ND (0.019) ND (0.016)	()	ND (0.022)	(******)
Aroclor 1242	mg/kg		ND (0.012)	ND (0.012)	ND (0.011)	ND (0.011	1) ND (0.011)	ND (0.010)	ND (0.013)	ND (0.011)	ND (0.011)	ND (0.013)	ND (0.011)	ND (0.014)	ND (0.012)	ND (0.014)	ND (0.011)	ND (0.010)	ND (0.010)	ND (0.012)	ND (0.011)	ND (0.011)	ND (0.017)	ND (0.011)	ND (0.012)	ND (0.011)	ND (0.010)	ND (0.012)	ND (0.010)	ND (0.010)	ND (0.012)	ND (0.013)
Aroclor 1248	mg/kg	1	(/	ND (0.011)	ND (0.011)	ND (0.010	0) ND (0.011)	ND (0.0097	(0.0)	ND (0.010)	ND (0.010)	ND (0.012)	ND (0.011)	ND (0.013)	ND (0.011)	ND (0.014)	ND (0.010)	ND (0.0098)	ND (0.0099)	ND (0.012)	ND (0.011)	ND (0.010)	ND (0.016)	(0.0.0)	ND (0.012)	ND (0.010)	ND (0.0096)	ND (0.012)	ND (0.0097)	ND (0.0097)	ND (0.011)	ND (0.012)
Aroclor 1254 Aroclor 1260	mg/kg	1 1	ND (0.017)	ND (0.017)	ND (0.016)	ND (0.016	0.011)	0.159 ND (0.010)	ND (0.018)	ND (0.016)	ND (0.016) ND (0.011)	ND (0.019)	ND (0.016)	ND (0.020)	ND (0.017) ND (0.012)	ND (0.021)	ND (0.016)	ND (0.015)	ND (0.015)	ND (0.018) ND (0.013)	ND (0.017) ND (0.012)	ND (0.016) ND (0.011)	ND (0.025)	(/	ND (0.018) ND (0.012)	ND (0.016)	ND (0.015) ND (0.010)	ND (0.018) ND (0.013)	ND (0.015) ND (0.010)	0.789 ° ND (0.010)	0.108 ° ND (0.012)	ND (0.019) ND (0.013)
Aroclor 1260 Aroclor 1268	mg/kg mg/kg	1	(0.0)	ND (0.012)	(*.* /	ND (0.010	., (*.*)	(0.0.0)	(0.0.0)	ND (0.011)	(=,	ND (0.013) ND (0.012)	ND (0.011)	(*****)	(0.0)	ND (0.013)	(/	(0.0)	()	(/	ND (0.012)	ND (0.011)	ND (0.017)	ND (0.011)	ND (0.012)	(*****)	ND (0.010)	(0.0.0)	ND (0.010)	()	()	(*****)
Aroclor 1262	mg/kg	1	ND (0.012)	ND (0.012)	ND (0.011)	ND (0.011	1) ND (0.011)	ND (0.010)	ND (0.013)	ND (0.011)	ND (0.011)	ND (0.013)	ND (0.011)	ND (0.014)	ND (0.012)	ND (0.014)	ND (0.011)	ND (0.010)	ND (0.010)	ND (0.012)	ND (0.011)	ND (0.011)	ND (0.017)	ND (0.011)	ND (0.012)	ND (0.011)	ND (0.010)	ND (0.012)	ND (0.010)	ND (0.010)	ND (0.012)	ND (0.013)
M-4-1 0 d-																																
Metal Compounds																																
Aluminum	mg/kg	-	2,850	3,630	1,730	3,090	1,990	10,800	5,350	11,200	12,900	2,750	3,480	5,520	11,900	6,970	9,220	8,610	4,490	10,400	7,400	5,790	2,260	7,200	3,510	3,600	6,250	9,920	7,220	11,700	8,320	5,210
Antimony	mg/kg		ND (2.3)		ND (2.2)		3.5	ND (2.0)			ND (2.2)	ND (2.0)	ND (2.4)	2.7	ND (2.2)		ND (2.2)	ND (2.2)	ND (2.1)	ND (2.4)	ND (2.3)	ND (2.3)	3.4	ND (2.3)	ND (2.4)	ND (2.2)	ND (2.1)	ND (2.1)	ND (2.1)	2.4	ND (2.3)	ND (2.3)
Arsenic Barium	mg/kg mg/kg	19 59.000	10.6 74.9		11.9 43.7	35.5 87.1		8.4 77.3	17.4 53.4	4.5 110	4.2 89.4	21.5	3.9	17.1 90.2	12.9 146	16.4 106	13.8 83.1	5.5 129	4.3 21.7	5.7 62.6	10.8 79.6	5.1 38.5	29.4 29.1	8.6 90.3	16 30	4.8 24.4	4.9 45.8	4.6 36.3	64.8	13.8 180	6 45.8	10.6 31.4
Beryllium	mg/kg		0.45	0.33	ND (0.22)		ND (0.23)	0.76	0.5	1.5	0.72	0.3	ND (0.24)	0.4	0.66	0.42	0.48	0.64	0.27	0.68	0.59	0.39	0.4	0.56	0.44	0.37	0.71	0.97	1.4	1.8	0.57	0.44
Cadmium	mg/kg	78	ND (0.58)		ND (0.55)	1.1	ND (0.57)	0.57	0.77	1.4	ND (0.56)	ND (0.50)	ND (0.59)	0.98	0.65	ND (0.73)	0.66	ND (0.55)	ND (0.52)	ND (0.59)	ND (0.57)	ND (0.59)	0.79	0.61	0.69	ND (0.54)	ND (0.52)	0.58	0.53	0.79	ND (0.57)	ND (0.58)
Calcium	mg/kg	-	999	1,220	583	1,270		3,020	1,250	1,760	707	2,340	1,910	1,860	2,190	2,300	1,280	2,110	ND (520)	1,620	1,960	1,730	881	2,470	910	664	4,740	2,480	4,840	4,650	1,380	941
Chromium Cobalt	mg/kg mg/kg	590	9.9 7.6	14.7 ND (5.9)	10.4 ND (5.5)	15.3 9	8.8 ND (5.7)	33.1 10.2	6.7	23.9 12.4	25 7.8	10.5 ND (5.0)	10.9 ND (5.9)	21.1 11	47.7 9.5	29.9 ND (7.3)	30.8 9	17.3 8.5	14.8 ND (5.2)	28.2 8.4	68.7 7.8	24 ND (5.9)	11.7 ND (4.9)	88.7 7.7	46.5 11.4	15.3 ND (5.4)	22.8 6.8	22.7 11.4	56.9 14.7	105 20.8	25.1 7.9	16.5 6.7
Copper	mg/kg		157	35.3	42.7	193	79.9	44.2	105	21.7	51.8	11.4	33.1	114	43.2	37.8	57.7	13	7	23.6	44.2	16.4	119	50.8	107	20.7	42.1	54.2	228	190	35.6	43.2
Iron	mg/kg	-	20,300		26,100	40,900		24,400		20,000	20,300	6,690	12,800	38,000	25,900	24,200	24,100	20,700	13,900	24,700	23,300	15,900	14,000	24,400	37,400	12,500	17,100	24,700	22,200	32,100	19,900	21,000
Lead Magnesium	mg/kg	800	135 ND (580)	30.4 1.800	47.6 ND (550)	379 736	128 ND (570)	53.6 4.140	131	13 4.310	11.6 4.220	7 858	28.1 961	167 1.880	54.4 3.290	50.1 1.340	66.6 2.890	11.1 3.910	12.8	16.7 4.230	48.6 2.790	21.7 2.180	174 ND (490)	55.1 2.720	156 929	31.2 1.080	40.8 2.610	13.9 3.840	188 2.570	300 2.040	57.1 3.540	33.2 2.230
Manganese	mg/kg mg/kg	5.900	ND (580) 147	1,800	ND (550)	289	ND (570) 81.9	4,140 388	1,630	4,310 361	4,220 186	73.9	961 81.5	1,880	3,290 267	1,340	2,890	3,910 769	1,570 85.2	4,230 306	2,790	2,180	ND (490) 88.4	529	115	1,080	2,610	3,840	334	2,040	3,540 219	133
Mercury	mg/kg		0.055	0.45	0.093			0.44	0.11	ND (0.039)	ND (0.034)		0.048	0.099	0.06	0.074	0.14	ND (0.033)		0.082	0.17	0.046	0.24	0.11	0.11	0.069		ND (0.038)	0.089	0.21	0.063	0.049
Nickel	mg/kg		12	14.4	9.5	24.4		32.7	17.6	35.1	21.1	10.5	10	25.8	24.5	14.7	22.6	17.2	8.2	20.3	25	13.1	9.6	19	19.1	7.7	21.1	23.7	84.1	108	20.7	17
Potassium Selenium	mg/kg		ND (1,200)	ND (1,200)	ND (1,100) ND (2.2)	ND (1,200	0) ND (1,100) ND (2.3)	1,520 ND (2.0)	ND (1,300)	2,030 ND (2.3)	2,040 ND (2.2)	ND (1,000) ND (2.0)	ND (1200) ND (2.4)	ND (1300) ND (2.6)	1530 ND (2.2)	ND (1,500) ND (2.9)	1,550 ND (2.2)	1,700 ND (2.2)	1,230 ND (2.1)	1,920 ND (2.4)	1,390 ND (2.3)	1,230 ND (2.3)	ND (990) ND (2.0)	1,370 ND (2.3)	ND (1,200) ND (2.4)	ND (1,100) ND (2.2)	1,160 ND (2.1)	2,060 ND (2.1)	1,150 ND (2.1)	1,240 ND (2.3)	1,560 ND (2.3)	ND (1,200) ND (2.3)
Silver	mg/kg mg/kg		2.4 ND (0.58)		1.5	1.5	1.6	ND (2.0)	(=)	ND (2.3) ND (0.56)	ND (2.2)	ND (2.0)	ND (2.4)	2.3	ND (2.2)	ND (2.9)	1.9	0.84	0.66	ND (2.4) 0.87	1	0.76	1.2	0.92	ND (2.4)	ND (2.2)	0.62	0.75	ND (2.1) 0.88	0.58	0.97	0.86
Sodium	mg/kg	-		ND (1,200)	ND (1,100)			ND (1,000)	(*.*.)	ND (1,100)	ND (1,100)	ND (1,000)	ND (1,200)	ND (1,300)	ND (1,100)	ND (1,500)	ND (1,100)	ND (1,100)		ND (1,200)	ND (1,100)	ND (1,200)	ND (990)	ND (1,100)	ND (1,200)	()	ND (1,000)	ND (1,000)	ND (1,000)	ND (1,100)	ND (1,100)	ND (1,200)
Thallium	mg/kg	79	ND (1.2)		ND (1.1)	ND (1.2)		ND (1.0)	()	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.2)	ND (1.3)	ND (1.1)	ND (1.5)	ND (1.1)	ND (1.1)	ND (1.0)	ND (1.2)	ND (1.1)	ND (1.2)	ND (0.99)		ND (1.2)	ND (1.1)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.1)	ND (1.1)	ND (1.2)
Vanadium Zinc	mg/kg	1,100 110,000	17.3 30.9	28.4 42.6	17.6 27.9	32.5 136	17.2 36.9	54.3 101	35.5 67.4	31.3 159	28.2 53.6	13.9 33.1	14.9 63.1	40.7 129	61.4 89.1	60.2 45.3	40.1 96.6	26.5 43.4	18.8 30.9	31 58.7	46.8 101	21.5 48.8	25.1 56.6	31.2 102	22.1 59	18.1 34.7	23.9 158	25.5 83.3	28.2 695	68 489	34.6 128	21.4
	iliyiky	110,000	30.8	42.0	21.3	130	30.9	101	07.4	100	33.0	33.1	03.1	123	05.1	40.0	30.0	40.4	30.5	30.1	101	40.0	30.0	102	Ja	34.1	130	03.3	093	403	120	
General Chemistry																																
Delide Descrit	lo/		00.0	07.7	07.0	0.7	05.4	04.7	77.0	05.0	07.5	70.0	07.5	74.4	0.7	00.0	00.0	00.0	00.0	05.0	04.4	- 00	00.0	04.5	00.0	- 00	00.7	70.0	00.5	00.0	00.7	04.7
Solids, Percent	%	-	88.3	87.7	87.2	8/	85.1	94.7	11.2	85.3	6.18	79.9	6.18	74.1	87	69.6	89.8	92.0	92.2	85.8	91.4	89	0.00	91.5	80.8	93	92.7	79.8	92.5	90.2	88.7	81.7

All results in mg/kg unless otherw	rise noted.	В	Compound Found in Blank
mg/kg	milligrams per kilogram	**	Health based standard defaults to soil saturation limit
J	Estimated Value	b	Result is from 2nd run
NS	Not Sampled	a	Result is from 2nd run
ND	Not Detected		Exceeds NJDEP Non-Residential Soil Remediation Standard
NA	Not Analyzed		

Client Comple ID:			VI DD 00 00	VI DD 66 20	VI DD CC 24
Client Sample ID: Lab Sample ID:		NJ Non- Residential	VLRR-SS-29 JB74808-1	VLRR-SS-30 JB74820-1	VLRR-SS-31 JB74820-2
Date Sampled:		Direct Contact	8/22/2014	8/20/2014	8/20/2014
Depth:		Soil	(3.0-3.5)	(3.0-3.5)	(5.0-5.5)
Volatile Organic Compounds Acetone	mg/kg		ND	0.0170 J	0.0282
Benzene	mg/kg	5	ND	ND	ND
Bromochloromethane	mg/kg	-	ND	ND	ND
Bromodichloromethane	mg/kg	3	ND	ND	ND
Bromoform Bromomethane	mg/kg	280 59	ND ND	ND ND	ND ND
2-Butanone (MEK)	mg/kg mg/kg	44,000	ND ND	ND ND	ND ND
Carbon disulfide	mg/kg	110,000	ND	ND	0.00096 J
Carbon tetrachloride	mg/kg	2	ND	ND	ND
Chlorobenzene	mg/kg	7,400	ND	ND	ND
Chloroethane Chloroform	mg/kg	1,100	ND	ND	ND
Chloromethane	mg/kg mg/kg	12	ND ND	ND ND	ND ND
Cyclohexane	mg/kg	-	ND	ND	ND
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND	ND	ND
Dibromochloromethane	mg/kg	8	ND	ND	ND
1,2-Dibromoethane	mg/kg	0.04	ND	ND	ND
1,2-Dichlorobenzene	mg/kg	59,000	ND	ND	ND
1,3-Dichlorobenzene 1,4-Dichlorobenzene	mg/kg mg/kg	59,000 13	ND ND	ND ND	ND ND
Dichlorodifluoromethane	mg/kg	230,000	ND	ND	ND
1,1-Dichloroethane	mg/kg	24	ND	ND	ND
1,2-Dichloroethane	mg/kg	3	ND	ND	ND
1,1-Dichloroethene	mg/kg	150	ND	ND	ND
cis-1,2-Dichloroethene trans-1,2-Dichloroethene	mg/kg	560 720	ND ND	ND ND	ND ND
1,2-Dichloropropane	mg/kg mg/kg	5	ND ND	ND ND	ND ND
cis-1,3-Dichloropropene	mg/kg	7	ND	ND	ND
trans-1,3-Dichloropropene	mg/kg	7	ND	ND	ND
Ethylbenzene	mg/kg	110,000	0.0125 J	ND	ND
Freon 113	mg/kg	-	ND	ND	ND
2-Hexanone	mg/kg	-	ND	ND	ND
Isopropylbenzene Methyl Acetate	mg/kg mg/kg	-	0.0788 J 0.0948 J	ND ND	ND ND
Methylcyclohexane	mg/kg	-	0.0940 0 ND	ND	ND
Methyl Tert Butyl Ether	mg/kg	320	ND	ND	ND
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND	ND	ND
Volatile Organic Compounds (c					
Methylene chloride	mg/kg	97	ND	ND	ND
Styrene 1,1,2,2-Tetrachloroethane	mg/kg mg/kg	260 3	ND ND	ND ND	ND ND
Tetrachloroethene	mg/kg	5	ND	ND	ND
Toluene	mg/kg	91,000	ND	ND	ND
1,2,3-Trichlorobenzene	mg/kg	-	ND	ND	ND
1,2,4-Trichlorobenzene	mg/kg	820	ND	ND	ND
1,1,1-Trichloroethane	mg/kg	4,200	ND	ND	ND
1,1,2-Trichloroethane	mg/kg	6	ND	ND	ND
Trichloroethene Trichlorofluoromethane	mg/kg mg/kg	20 340,000	ND ND	ND ND	ND ND
Vinyl chloride	mg/kg	2	ND	ND	ND
m,p-Xylene	mg/kg	170,000	ND	ND	ND
o-Xylene	mg/kg	170,000	ND	ND	ND
Xylene (total)	mg/kg	170,000	ND	ND	ND
Volatile Organic Tentatively Ide Total TIC, Volatile		mpounds	125.2 17451	0	0
Total FIC, Volatile Total Alkanes	mg/kg mg/kg	-	125.3 J (15) 0	0	0
Semi-Volatile Organic Compour			•		· ·
2-Chlorophenol	mg/kg	2,200	ND	ND	ND
4-Chloro-3-methyl phenol	mg/kg	-	ND	ND	ND
2,4-Dichlorophenol	mg/kg	2,100	ND	ND	ND
2,4-Dimethylphenol	mg/kg	14,000	ND	ND	ND
2,4-Dinitrophenol 4,6-Dinitro-o-cresol	mg/kg mg/kg	1,400 68	ND ND	ND ND	ND ND
2-Methylphenol	mg/kg	3,400	ND	ND	ND
3&4-Methylphenol	mg/kg	-	ND	ND	ND
2-Nitrophenol	mg/kg	-	ND	ND	ND
4-Nitrophenol	mg/kg	-	ND	ND	ND
Pentachlorophenol	mg/kg	10	ND	ND	ND
Phenol 2,3,4,6-Tetrachlorophenol	mg/kg mg/kg	210,000	ND ND	ND ND	ND ND
2,4,5-Trichlorophenol	mg/kg	68,000	ND	ND ND	ND
2,4,6-Trichlorophenol	mg/kg	74	ND	ND	ND
Acenaphthene	mg/kg	37,000	2.82	ND	ND
Acenaphthylene	mg/kg	300,000	ND	ND	ND
Acetophenone	mg/kg	5	ND	ND	ND
Anthracene	mg/kg	30,000	ND	ND	ND

Client Sample ID: Lab Sample ID: Date Sampled:			1// 22 22 22	1// 55 00 00	\" \ \" \ \" \
·		NJ Non- Residential	VLRR-SS-29 JB74808-1	VLRR-SS-30 JB74820-1	VLRR-SS-31 JB74820-2
1111111111		Direct Contact	8/22/2014	8/20/2014	8/20/2014
Depth:		Soil	(3.0-3.5)	(3.0-3.5)	(5.0-5.5)
Atrazine	mg/kg	2400	ND	ND	ND
Semi-Volatile Organic Compound	ls				
Benzo(a)anthracene	mg/kg	2	0.0344	0.0305 J	ND
Benzo(a)pyrene	mg/kg	0.2	0.0318 J	0.0209 J	ND
Benzo(b)fluoranthene	mg/kg	2	0.0268 J	0.0280 J	ND
Benzo(g,h,i)perylene Benzo(k)fluoranthene	mg/kg	30,000	0.0243 J ND	ND ND	ND ND
4-Bromophenyl phenyl ether	mg/kg mg/kg	-	ND ND	ND ND	ND ND
Butyl benzyl phthalate	mg/kg	14,000	ND	ND	ND
1,1'-Biphenyl	mg/kg	34,000	ND	ND	ND
Benzaldehyde	mg/kg	68,000	ND	ND	ND
2-Chloronaphthalene	mg/kg	-	ND	ND	ND
1-Chloroaniline	mg/kg	-	ND	ND	ND
Carbazole	mg/kg	96	ND	ND	ND
Caprolactam	mg/kg	340,000	ND	ND	ND
Chrysene	mg/kg	230	0.0395	0.0365 J	ND
ois(2-Chloroethoxy)methane	mg/kg	-	ND	ND	ND
pis(2-Chloroethyl)ether	mg/kg	2	ND	ND	ND
pis(2-Chloroisopropyl)ether	mg/kg	67	ND	ND	ND
1-Chlorophenyl phenyl ether 2,4-Dinitrotoluene	mg/kg	3	ND ND	ND ND	ND ND
2,4-Dinitrotoluene 2,6-Dinitrotoluene	mg/kg mg/kg	3	ND ND	ND ND	ND ND
3,3'-Dichlorobenzidine	mg/kg	4	ND ND	ND ND	ND ND
1,4-Dioxane	mg/kg	-	ND	ND	ND
Dibenzo(a,h)anthracene	mg/kg	0.2	ND	ND	ND
Dibenzofuran	mg/kg	-	ND	ND	ND
Di-n-butyl phthalate	mg/kg	68,000	ND	ND	0.0511 J
Di-n-octyl phthalate	mg/kg	27,000	ND	ND	ND
Diethyl phthalate	mg/kg	550,000	ND	ND	ND
Dimethyl phthalate	mg/kg	-	ND	ND	ND
pis(2-Ethylhexyl)phthalate	mg/kg	140	0.485	ND	ND
-luoranthene	mg/kg	24,000	0.136	0.046	ND
luorene	mg/kg	24,000	4.51	ND	ND
Hexachlorobenzene	mg/kg	1	ND	ND	ND
Hexachlorobutadiene Hexachlorocyclopentadiene	mg/kg	25 110	ND ND	ND ND	ND ND
Hexachloroethane	mg/kg mg/kg	140	ND ND	ND	ND ND
Semi-Volatile Organic Compound		140	145	148	NB
ndeno(1,2,3-cd)pyrene	mg/kg	2	0.0164 J	ND (0.013)	ND (0.014)
sophorone	mg/kg	2,000	ND	ND	ND
2-Methylnaphthalene	mg/kg	2,400	0.75	ND	ND
2-Nitroaniline	mg/kg	23,000	ND	ND	ND
3-Nitroaniline	mg/kg	-	ND	ND	ND
1-Nitroaniline	mg/kg	-	ND	ND	ND
Naphthalene	mg/kg	17	ND	ND	ND
Nitrobenzene	mg/kg	340	ND	ND	ND
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND	ND	ND
N-Nitrosodiphenylamine	mg/kg	390	ND 0.00	ND	ND
Phenanthrene Pyrene	mg/kg	300,000 18,000	6.83 0.258	0.0289 J 0.0320 J	ND ND
1,2,4,5-Tetrachlorobenzene	mg/kg mg/kg	10,000	0.258 ND	0.0320 J ND	ND ND
Semi-Volatile Organic Tentatively		ed Compounds	IND	140	140
Total TIC, Semi-Volatile	mg/kg	-	66.7 J (24)	1.03 J (3)	7.56 J (7)
	mg/kg	-	4 J	0	0.3 J
Total Alkanes					(
Γotal Alkanes Pesticides and Herbicides					
	mg/kg	0.2	ND		-
Pesticides and Herbicides	mg/kg mg/kg	0.2	ND ND	<u>-</u>	-
Pesticides and Herbicides Aldrin alpha-BHC peta-BHC			ND ND	-	
Pesticides and Herbicides Aldrin alpha-BHC peta-BHC delta-BHC	mg/kg mg/kg mg/kg	0.5 2 -	ND ND ND	-	-
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	mg/kg mg/kg mg/kg mg/kg	0.5 2 - 2	ND ND ND ND	-	
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane	mg/kg mg/kg mg/kg mg/kg mg/kg	0.5 2 - 2 1	ND ND ND ND	-	- - - -
Pesticides and Herbicides Aldrin alpha-BHC peta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane	mg/kg mg/kg mg/kg mg/kg mg/kg	0.5 2 - 2 1	ND ND ND ND ND	-	
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma)	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.5 2 - 2 1 1	ND ND ND ND ND ND ND ND ND		- - - - -
Pesticides and Herbicides Aldrin alpha-BHC peta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.5 2 - 2 1 1 1 0.2	ND		- - - - - -
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin 4,4'-DDD	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.5 2 - 2 1 1 1 0.2	ND N		- - - - -
Pesticides and Herbicides Aldrin alpha-BHC peta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin	mg/kg	0.5 2 - 2 1 1 1 0.2	ND	- - - -	- - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin 4,4'-DDD	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	0.5 2 - 2 1 1 1 0.2 13	ND N	- - - - -	- - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC Deta-BHC Deta-	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8	ND N	- - - - - -	- - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC peta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin 4,4'-DDD 4,4'-DDE 4,4'-DDT Endrin	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8 340	ND N	- - - - - - -	- - - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin 4,4'-DDD 4,4'-DDE 4,4'-DDT Endrin Endosulfan sulfate	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8 340 6,800	ND N	- - - - - - -	- - - - - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin 4,4'-DDD 4,4'-DDE 4,4'-DDT Endosulfan sulfate Endrin aldehyde	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8 340 6,800 -	ND N	- - - - - - - - -	- - - - - - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin 4,4'-DDD 4,4'-DDE 4,4'-DDT Endrin Endosulfan sulfate Endrin aldehyde Endosulfan-II Heptachlor	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8 340 6,800 - 6,800	ND N	- - - - - - - - - -	- - - - - - - - - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC Deta-BHC Deta-	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8 340 6,800 - 6,800 6,800 0.7 0.3	ND N	- - - - - - - - - -	- - - - - - - - - - - - - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC Deta-BHC Deta-	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8 340 6,800 - 6,800 6,800 0.7 0.3 5,700	ND N	- - - - - - - - - - - - -	- - - - - - - - - - - - - - - - -
Pesticides and Herbicides Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) alpha-Chlordane gamma-Chlordane Chlordane (alpha and gamma) Dieldrin 4,4'-DDD 4,4'-DDE 4,4'-DDT Endrin Endosulfan sulfate Endrin aldehyde Endosulfan-I Endosulfan-II Heptachlor epoxide	mg/kg	0.5 2 - 2 1 1 1 0.2 13 9 8 340 6,800 - 6,800 6,800 0.7 0.3	ND N	- - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -

Client Sample ID:		NJ Non-	VLRR-SS-29	VLRR-SS-30	VLRR-SS-31
Lab Sample ID:		Residential	JB74808-1	JB74820-1	JB74820-2
Date Sampled:		Direct Contact	8/22/2014	8/20/2014	8/20/2014
Depth:		Soil	(3.0-3.5)	(3.0-3.5)	(5.0-5.5)
Aroclor 1221	mg/kg	1	ND	ND	ND
Polychlorinated Biphenyls					
Aroclor 1232	mg/kg	1	ND	ND	ND
Aroclor 1242	mg/kg	1	ND	ND	ND
Aroclor 1248	mg/kg	1	ND	ND	ND
Aroclor 1254	mg/kg	1	0.0725	ND	ND
Aroclor 1260	mg/kg	1	ND	ND	ND
Polychlorinated Biphenyls (co	ntinued)				
Aroclor 1268	mg/kg	1	ND	ND	ND
Aroclor 1262	mg/kg	1	ND	ND	ND
Metal Compounds					
Aluminum	mg/kg	-	3,960	2,520	8,390
Antimony	mg/kg	450	ND (2.1)	ND (6.6) ^d	ND (2.3)
Arsenic	mg/kg	19	6.9	19.4	4.3
Barium	mg/kg	59,000	26.6	78.7	ND
Beryllium	mg/kg	140	0.52	0.35	0.92
Cadmium	mg/kg	78	0.59	ND	ND
Calcium	mg/kg	-	6,720	879	ND
Chromium	mg/kg	-	28.3	7.3 ^d	13.9
Cobalt	mg/kg	590	ND	6	7.7
Copper	mg/kg	45,000	14.8	82.2 ^d	7.7
Iron	mg/kg	-	19,600	98,000	15,900
Lead	mg/kg	800	35.2	122 ^d	5.2
Magnesium	mg/kg	-	1,450	ND	1,710
Manganese	mg/kg	5,900	150	189 ^d	67.7
Mercury	mg/kg	65	ND	0.11	ND
Nickel	mg/kg	23,000	9.7	12.2	16.4
Potassium	mg/kg	-	ND	ND	ND
Selenium	mg/kg	5,700	ND	ND	ND
Silver	mg/kg	5,700	ND	1.8 ^d	0.63
Sodium	mg/kg	-	ND	ND	ND
Thallium	mg/kg	79	ND	ND	ND
Vanadium	mg/kg	1,100	22.7	11.8	25.3
Zinc	mg/kg	110,000	116	186	57.4
General Chemistry					
Cyanide	mg/kg	23,000	ND	ND	ND
Solids, Percent	%	-	93.8	87.3	84.9

All results in mg/kg unless otherwi	se noted.
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
а	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Table 4-1
Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results at AOC 73 - TEL Building (North)

		NJ Non-	TEL1-SS-2	TEL1-SS-3	TEL1-SS-4
Client Sample ID:		Residential Direct Contact	(0.5-1.0)	(1.5-2.0)	(1.5-2.0)
Lab Sample ID:		Soil (NJAC 7:	JB77666-1	JB77666-2	JB77666-3
Date Sampled:		26D 6/08)	9/24/2014	9/24/2014	9/24/2014
Matrix:			Soil	Soil	Soil
Volatile Organic Compounds					
Acetone	mg/kg	-	0.0612	0.054	0.063
Benzene	mg/kg	5	ND (0.00017)	ND (0.00020)	ND (0.00026)
Bromochloromethane	mg/kg	3	ND (0.00027)	ND (0.00032)	ND (0.00041)
Bromodichloromethane Bromoform	mg/kg mg/kg	280	ND (0.00020) ND (0.00017)	ND (0.00023) ND (0.00020)	ND (0.00030) ND (0.00026)
Bromomethane	mg/kg	59	ND (0.00017)	ND (0.00020)	ND (0.00020)
2-Butanone (MEK)	mg/kg	44,000	ND (0.0018)	ND (0.0021)	ND (0.0028)
Carbon disulfide	mg/kg	110,000	ND (0.00029)	0.00085 J	0.00048 J
Carbon tetrachloride	mg/kg	2	ND (0.00014)	ND (0.00016)	ND (0.00021)
Chlorobenzene Chloroethane	mg/kg mg/kg	7,400 1,100	ND (0.00014) ND (0.00028)	ND (0.00016) ND (0.00033)	ND (0.00021) ND (0.00042)
Chloroform	mg/kg	1,100	ND (0.00028)	ND (0.00033)	ND (0.00042)
Chloromethane	mg/kg	12	ND (0.00030)	ND (0.00015)	ND (0.00045)
Cyclohexane	mg/kg	-	ND (0.00034)	ND (0.00040)	ND (0.00052)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00038)	ND (0.00045)	ND (0.00058)
Dibromochloromethane	mg/kg	8	ND (0.00017)	ND (0.00020)	ND (0.00026)
1,2-Dibromoethane 1,2-Dichlorobenzene	mg/kg mg/kg	0.04 59.000	ND (0.00018) ND (0.00018)	ND (0.00021) ND (0.00022)	ND (0.00027) ND (0.00028)
1,3-Dichlorobenzene	mg/kg	59,000	ND (0.00018)	ND (0.00022)	ND (0.00029)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00016)	ND (0.00019)	ND (0.00024)
Dichlorodifluoromethane	mg/kg	230,000	ND (0.00051)	ND (0.00060)	ND (0.00077)
1,1-Dichloroethane	mg/kg	24	ND (0.00018)	ND (0.00021)	ND (0.00027)
1,2-Dichloroethane	mg/kg	3	ND (0.00025)	ND (0.00029)	ND (0.00038)
1,1-Dichloroethene cis-1,2-Dichloroethene	mg/kg mg/kg	150 560	ND (0.00027) ND (0.00025)	ND (0.00032) ND (0.00030)	ND (0.00041) ND (0.00039)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00023)	ND (0.00030)	ND (0.00039)
1,2-Dichloropropane	mg/kg	5	ND (0.00017)	ND (0.00020)	ND (0.00025)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	ND (0.00015)	ND (0.00019)
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00017)	ND (0.00019)	ND (0.00025)
Ethylbenzene	mg/kg	110,000	ND (0.00019)	ND (0.00022)	ND (0.00029)
Freon 113 2-Hexanone	mg/kg mg/kg	-	ND (0.00053) ND (0.0016)	ND (0.00062) ND (0.0018)	ND (0.00080) ND (0.0024)
Isopropylbenzene	mg/kg	-	ND (0.0018)	ND (0.00021)	ND (0.0024)
Methyl Acetate	mg/kg	-	ND (0.0011)	ND (0.0013)	ND (0.0016)
Methylcyclohexane	mg/kg	-	ND (0.00021)	ND (0.00025)	ND (0.00032)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00016)	ND (0.00019)	ND (0.00025)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00052)	ND (0.00061)	ND (0.00079)
Methylene chloride Styrene	mg/kg mg/kg	97 260	ND (0.0015) ND (0.00018)	ND (0.0017) ND (0.00021)	0.0023 J ND (0.00027)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00018)	ND (0.00021)	ND (0.00027)
Tetrachloroethene	mg/kg	5	ND (0.00017)	ND (0.00020)	ND (0.00026)
Toluene	mg/kg	91,000	ND (0.00023)	ND (0.00027)	ND (0.00034)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00020)	ND (0.00023)	ND (0.00030)
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	mg/kg	820	ND (0.00018) ND (0.00014)	ND (0.00021) ND (0.00016)	ND (0.00027) ND (0.00021)
1,1,2-Trichloroethane	mg/kg mg/kg	4,200 6	ND (0.00014)	ND (0.00016)	ND (0.00021)
Trichloroethene	mg/kg	20	ND (0.00022)	ND (0.00023)	ND (0.00030)
Trichlorofluoromethane	mg/kg	340,000	ND (0.00017)	ND (0.00020)	ND (0.00025)
Vinyl chloride	mg/kg	2	ND (0.00036)	ND (0.00043)	ND (0.00055)
m,p-Xylene	mg/kg	170,000	ND (0.00040)	ND (0.00047)	ND (0.00061)
o-Xylene Xylene (total)	mg/kg	170,000 170,000	ND (0.00021) ND (0.00021)	ND (0.00025) ND (0.00025)	ND (0.00032) ND (0.00032)
Total TIC, Volatile	mg/kg mg/kg	170,000	0	0 (0.00025)	0 (0.00032)
Total Alkanes	mg/kg	_	0	0	0.008 J
	J J			-	
Metal Compounds					
Lead	mg/kg	800	18.9	14.4	14.9
General Chemistry					
Solids, Percent	%	-	86.8	83.9	76.6
All results in marks unless ether	170	•	50.0	6.00	70.0

All results in mg/kg unless otherw	ise noted.
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
a	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Client Sample ID:		NJ Non-	CPTF-SS-1	CPTF-SS-1	CPTF-SS-2	CPTF-SS-3	CPTF-SS-4	CPTF-SS-5	CPTF-SS-6
Lab Sample ID:		Residential Direct Contact	JB98804-1	JB98804-1R	JB98804-2	JB98804-3	JB98804-4	JB98804-5	JB98804-6
Date Sampled:		Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015
Matrix:		1	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	8.0-8.5 ft	12.5-13.0 ft	12.0-12.5 ft	0.5-1.0 ft	0.5-1.0 ft
GC/MS Volatiles (SW846 82600	C)								
Acetone	mg/kg	NA	_	0.0199	-	-	-	-	-
Bromochloromethane	mg/kg	IVA		ND (0.00029)	-	-	-		-
Bromodichloromethane	mg/kg	3		ND (0.00029)	-		-		
Bromoform	mg/kg	280	-	ND (0.00022)	-	_	-	_	_
Bromomethane	mg/kg	59	-	ND (0.00034)	-	-	-	-	-
2-Butanone (MEK)	mg/kg	44000		0.0028 J		_	-	-	_
Carbon disulfide	mg/kg	110000		ND (0.00021)		_	-	-	_
Carbon tetrachloride	mg/kg	2	-	ND (0.00021)	-	-	-	-	-
Chlorobenzene	mg/kg	7400	-	ND (0.00014)	-	-	-	-	-
Chloroethane	mg/kg	1100	-	ND (0.00045)	-	-	-	-	-
Chloroform	mg/kg	2	-	ND (0.00014)	-	-	-	-	-
Chloromethane	mg/kg	12	-	ND (0.00024)	-	-	-	-	-
Cyclohexane	mg/kg	-	-	ND (0.00029)	-	-	-	-	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	-	ND (0.00051)	-	-	-	-	-
Dibromochloromethane	mg/kg	8	-	ND (0.00019)	-	-	-	-	-
1,2-Dibromoethane	mg/kg	0.04	-	ND (0.00012)	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	59000	-	ND (0.00011)	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	59000	-	ND (0.00015)	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	13	-	ND (0.00021)	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	230000	-	ND (0.00034)	-	-	-	-	-
1,1-Dichloroethane	mg/kg	24	=	ND (0.00013)	-	-	-	-	-
1,2-Dichloroethane	mg/kg	3	=	ND (0.00012)	-	-	-	-	-
1,1-Dichloroethene	mg/kg	150	-	ND (0.00055)	-	-	•	-	-
cis-1,2-Dichloroethene	mg/kg	560	-	ND (0.00073)	ı	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	720	-	ND (0.00055)	ı	-	-	-	-
1,2-Dichloropropane	mg/kg	5	-	ND (0.00022)	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	7	-	ND (0.00011)	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	7	-	ND (0.00017)	-	-	-	-	-
Ethylbenzene	mg/kg	110000	-	ND (0.00015)	-	-	-	-	-
Freon 113	mg/kg	-	-	ND (0.00042)	-	-	-	-	-
2-Hexanone	mg/kg	-	-	ND (0.0012)	-	-	-	-	-
Isopropylbenzene	mg/kg	-	-	ND (0.000099)	-	-	-	-	-
Methyl Acetate	mg/kg	NA	-	ND (0.00080)	-	-	-	-	-
Methylcyclohexane	mg/kg	-	-	ND (0.00021)	-	-	-	-	-
Methyl Tert Butyl Ether	mg/kg	320	-	ND (0.00014)	-	-	-	-	-
4-Methyl-2-pentanone(MIBK)	mg/kg	97		ND (0.00043) 0.0014 J	-	-	-	-	-
Methylene chloride	mg/kg mg/kg	260	-	ND (0.00017)	-	-	-	-	-
Styrene Tert Butyl Alcohol	mg/kg	11000	-	ND (0.0025)	-			-	-
1,1,2,2-Tetrachloroethane	mg/kg	3		ND (0.0025)	-	-	-	-	-
Tetrachloroethene	mg/kg	5		ND (0.00028)	-	-	-	-	-
Toluene	mg/kg	91000	-	0.00041 J	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	-	-	ND (0.00016)	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	820	-	ND (0.00016)	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	4200	-	ND (0.00014)	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	6	-	ND (0.00014)	-	-	-	-	-
Trichloroethene	mg/kg	20	-	ND (0.00014)	-	-	-	-	-
Trichlorofluoromethane	mg/kg	340000	-	ND (0.00023)	-	-	-	-	-
Vinyl chloride	mg/kg	2	-	ND (0.00018)	-	-	-	-	-
m,p-Xylene	mg/kg	170000	-	ND (0.00033)	-	-	-	-	-
o-Xylene	mg/kg	170000	-	ND (0.00026)	-	-	-	-	-
Xylene (total)	mg/kg	170000	-	ND (0.00026)	-	-	-	-	-
00/80 1/1/8	2)								
GC/MS Volatiles (SW846 82600	3)								
Total TIC, Volatile	mg/kg	-	-	1.31 J	-	-	-	-	-
Total Alkanes	mg/kg	_	-	0.41 J	-	-	-	-	-
	39								

Client Sample ID:		NJ Non-	CPTF-SS-1	CPTF-SS-1	CPTF-SS-2	CPTF-SS-3	CPTF-SS-4	CPTF-SS-5	CPTF-SS-6
Lab Sample ID:		Residential Direct Contact	JB98804-1	JB98804-1R	JB98804-2	JB98804-3	JB98804-4	JB98804-5	JB98804-6
Date Sampled:		Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	8.0-8.5 ft	12.5-13.0 ft	12.0-12.5 ft	0.5-1.0 ft	0.5-1.0 ft
GC/MS Semi-volatiles (SW846	8270D)								
2-Chlorophenol	mg/kg	2200	-	ND (0.077)	-	-	-	-	-
4-Chloro-3-methyl phenol	mg/kg	-	-	ND (0.19)	-	-	-	-	-
2,4-Dichlorophenol 2,4-Dimethylphenol	mg/kg	2100 14000		ND (0.19) ND (0.19)	-	-		-	-
2,4-Dinitrophenol	mg/kg mg/kg	1400	-	ND (0.19)	-	-	-	-	-
4,6-Dinitro-o-cresol	mg/kg	68		ND (0.19)	-	-	-	-	-
2-Methylphenol	mg/kg	3400	-	ND (0.077)	-	-	-	-	-
3&4-Methylphenol	mg/kg	-	-	ND (0.077)	-	-	-	-	-
2-Nitrophenol	mg/kg	-	-	ND (0.19)	-	-	-	-	-
4-Nitrophenol	mg/kg	-	-	ND (0.39)	-	-	-	-	-
Pentachlorophenol	mg/kg	10	-	ND (0.19)	-	-	-	-	-
Phenol	mg/kg	210000	-	ND (0.077)	-	-	-	-	-
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	mg/kg	68000	-	ND (0.19) ND (0.19)	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg mg/kg	74		ND (0.19)	-	-	-	-	-
Acenaphthene	mg/kg	37000	-	ND (0.039)	-	-	-	-	-
Acenaphthylene	mg/kg	300000	-	ND (0.039)	-	-	-	-	-
Acetophenone	mg/kg	5	-	ND (0.19)	-	-	-	-	-
Anthracene	mg/kg	30000	-	ND (0.039)	-	-	-	-	-
Atrazine	mg/kg	2400	-	ND (0.077)	-	-	-	-	-
Benzo(a)anthracene	mg/kg	2	-	ND (0.039)	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.2	-	ND (0.039)	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	30000		ND (0.039) ND (0.039)	-	-		-	-
Benzo(g,h,i)perylene Benzo(k)fluoranthene	mg/kg mg/kg	23		ND (0.039)	-	-	-	-	
4-Bromophenyl phenyl ether	mg/kg	-	<u> </u>	ND (0.039)	-	-	-	-	
Butyl benzyl phthalate	mg/kg	14000		ND (0.077)	-	-		_	
1,1'-Biphenyl	mg/kg	34000	-	ND (0.077)	-	-	-	-	-
Benzaldehyde	mg/kg	68000	-	ND (0.19)	-	-	-	-	-
2-Chloronaphthalene	mg/kg	-	-	ND (0.077)	-	-	-	-	-
4-Chloroaniline	mg/kg	-	-	ND (0.19)	-	-	-	-	-
Carbazole	mg/kg	96 340000	-	ND (0.077) ND (0.077)	-	-	-	-	-
Caprolactam Chrysene	mg/kg mg/kg	230		ND (0.077) ND (0.039)	-	-		-	
bis(2-Chloroethoxy)methane	mg/kg	-		ND (0.003)	_	_	-	-	-
bis(2-Chloroethyl)ether	mg/kg	2	-	ND (0.077)	-	-	-	-	-
bis(2-Chloroisopropyl)ether	mg/kg	67	-	ND (0.077)	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	ND (0.077)	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	3	-	ND (0.039)	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	3	-	ND (0.039)	-	-	-	-	-
3,3'-Dichlorobenzidine 1.4-Dioxane	mg/kg	4	-	ND (0.077)	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg mg/kg	0.2	-	ND (0.039) ND (0.039)	-	-	-	-	-
Dibenzofuran	mg/kg	-		ND (0.039)	-	-	-		
Di-n-butyl phthalate	mg/kg	68000	-	ND (0.077)	-	-	-	-	-
Di-n-octyl phthalate	mg/kg	27000	-	ND (0.077)	-	-	-	-	-
Diethyl phthalate	mg/kg	550000	-	ND (0.077)	-	-	-	-	-
Dimethyl phthalate	mg/kg	-	-	ND (0.077)	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/kg	140	-	ND (0.077)	-	-	-	-	-
Fluoranthene	mg/kg	24000 24000	-	ND (0.039)	-	-	-	-	-
Fluorene Hexachlorobenzene	mg/kg mg/kg	24000	-	ND (0.039) ND (0.077)	<u> </u>	-	-	-	-
Hexachlorobutadiene	mg/kg	25	-	ND (0.077) ND (0.039)	-	-	-	-	-
Hexachlorocyclopentadiene	mg/kg	110	-	ND (0.39)	-	-	-	-	-
Hexachloroethane	mg/kg	140	-	ND (0.19)	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	2	-	ND (0.039)	-	-	-	-	-
Isophorone	mg/kg	2000	-	ND (0.077)	-	-	-	-	-
2-Methylnaphthalene	mg/kg	2400	-	ND (0.077)	-	-	-	-	-
2-Nitroaniline	mg/kg	23000	-	ND (0.19)	-	-	-	-	-
3-Nitroaniline	mg/kg	-	-	ND (0.19)	-	-	-	-	-
4-Nitroaniline Naphthalene	mg/kg mg/kg	17		ND (0.19) ND (0.039)	-	-		-	-
Nitrobenzene	mg/kg	340	<u> </u>	ND (0.039)	-	-	-		
N-Nitroso-di-n-propylamine	mg/kg	0.3	-	ND (0.077)	-	-	-	-	-
N-Nitrosodiphenylamine	mg/kg	390	-	ND (0.19)	-	-	-	-	-
Phenanthrene	mg/kg	300000	-	ND (0.039)	-	-	-	-	-
Pyrene	mg/kg	18000	-	ND (0.039)	-	-	-	-	-
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	ND (0.19)	-	-	-	-	-

Table 4-46 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 75 - Former Canning Plant

Client Sample ID:		NJ Non-	CPTF-SS-1	CPTF-SS-1	CPTF-SS-2	CPTF-SS-3	CPTF-SS-4	CPTF-SS-5	CPTF-SS-6
Lab Sample ID:		Residential Direct Contact	JB98804-1	JB98804-1R	JB98804-2	JB98804-3	JB98804-4	JB98804-5	JB98804-6
Date Sampled:		Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015
Matrix: Depth:			Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 8.0-8.5 ft	Soil 12.5-13.0 ft	Soil 12.0-12.5 ft	Soil 0.5-1.0 ft	Soil 0.5-1.0 ft
			1.5-2.0 10	1.5-2.0 10	8.0-6.5 11	12.5-13.0 It	12.0-12.5 10	0.5-1.0 It	0.5-1.0 10
C/MS Semi-volatile TIC									
otal TIC, Semi-Volatile	mg/kg	-	-	30.31 J	-	-	-	-	-
otal Alkanes	mg/kg	-	-	0.67 J	-	-	-	-	-
C Semi-volatiles (NJDEP E	PH)								
PH (C9-C28)	mg/kg	-	-	-	-	-	-	-	-
PH (>C28-C40)	mg/kg	-	-	-	-	-	-	-	-
otal EPH (C9-C40)	mg/kg	-	-	-	- ND (0.13)	-	- ND (0.14)	- ND (0.12)	- ND (0.40)
C10-C12 Aromatics	mg/kg	-	ND (0.14) ND (0.22)	-	(,	ND (0.14)	ν- /	(- /	ND (0.12) ND (0.19)
212-C16 Aromatics	mg/kg	-	122		ND (0.21) ND (0.45)	ND (0.22) ND (0.47)	ND (0.23)	40.4 70	
C16-C21 Aromatics C21-C36 Aromatics	mg/kg mg/kg	-	1190	-	ND (0.45) ND (0.55)	ND (0.47) ND (0.58)	ND (0.49) ND (0.60)	19.1	ND (0.41) 94
otal Aromatics	mg/kg	-	1320	-	ND (0.55) ND (0.13)	ND (0.56) ND (0.14)	ND (0.60) ND (0.14)	129	94
	mg/kg	-	ND (0.13)	-	ND (0.13) ND (0.12)	ND (0.14) ND (0.13)	ND (0.14) ND (0.13)	52.7	94 ND (0.11)
9-C12 Aliphatics	mg/kg	-	57.4	-	ND (0.12) ND (0.12)	ND (0.13) ND (0.13)	ND (0.13)	215	ND (0.11) ND (0.11)
12-C16 Aliphatics	_	-	160	-	ND (0.12) ND (0.22)	ND (0.13) ND (0.23)	ND (0.13) ND (0.24)	239	ND (0.11) ND (0.20)
16-C21 Aliphatics	mg/kg	-	1970	-	ND (0.22) ND (1.2)	ND (0.23) ND (1.3)	ND (0.24) ND (1.4)	239 87	ND (0.20)
21-C40 Aliphatics	mg/kg mg/kg	-	2180	-	ND (1.2) ND (0.12)	ND (1.3) ND (0.13)	ND (1.4) ND (0.13)	87 594	123
otal Aliphatics	_		3500	-	ND (0.12) ND (0.12)	ND (0.13) ND (0.13)	ND (0.13)	723	217
otal EPH	mg/kg		3300		IND (U.12)	ND (0.13)	ND (0.10)	123	211
C Semi-volatiles (SW846 80	182A)								
roclor 1016	mg/kg	1	-	ND (0.013)	-	-	-	-	-
roclor 1221	mg/kg	1	-	ND (0.023)	-	-	-	-	-
roclor 1232	mg/kg	1	-	ND (0.013)	-	-	-	-	-
roclor 1242	mg/kg	1	-	ND (0.018)	-	-	-	-	-
roclor 1248	mg/kg	1	-	ND (0.012)	-	-	-	-	-
roclor 1254	mg/kg	1	-	ND (0.018)	-	-	-	-	-
roclor 1260	mg/kg	1	-	ND (0.017)	-	-	-	-	-
Aroclor 1268	mg/kg	1	-	ND (0.012)	-	-	-	-	-
Aroclor 1262	mg/kg	1	-	ND (0.011)	-	-	-	-	-
Metals Analysis									
Numinum	mg/kg	NA	-	11700	-	-	-	-	-
Antimony	mg/kg	450	-	<2.3	-	-	-	-	-
Arsenic	mg/kg	19	-	4.3	-	-	-	-	-
Barium	mg/kg	59000	-	23.1	-	-	-	-	-
Seryllium	mg/kg	140	-	0.69	-	-	-	-	-
Cadmium	mg/kg	78	-	<0.57	-	-	-	-	-
Calcium	mg/kg	-	-	656	-	-	-	-	-
Chromium	mg/kg	-	-	15.4	-	-	-	-	-
Chromium, Hexavalent	mg/kg	-	-	-	-	-	-	-	-
obalt	mg/kg	590	-	7.6	-	-	-	-	-
opper	mg/kg	45000	-	6.1	-	-	-	-	-
on	mg/kg	-	-	13400	-	-	-	-	-
ead	mg/kg	800	-	7.6	-	-	-	-	-
1agnesium	mg/kg	-	-	855	-	-	-	-	-
langanese	mg/kg	5900	-	86.3	-	-	-	-	-
lercury	mg/kg	65	-	<0.036	-	-	-	-	-
ickel	mg/kg	23000	-	9.9	-	-	-	-	-
otassium	mg/kg	-	-	<1100	-	-	-	-	-
elenium	mg/kg	5700	-	<2.3	-	-	-	-	-
ilver	mg/kg	5700	-	<0.57	-	-	-	-	-
odium	mg/kg	-	-	<1100	-	-	-	-	-
ulfur	mg/kg	-	-	-	-	-	-	-	-
hallium	mg/kg	79	-	<1.1	-	-	-	-	-
anadium	mg/kg	1100	-	22.4	-	-	-	-	-
inc	mg/kg	110000	-	22.1	-	-	-	-	-
eneral Chemistry									
,	%		83.8		84.6	83.7	84.2	88.4	92.3

J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit

milligrams per kilogram

Result is from 2nd run Result is from 2nd run

All results in mg/kg unless otherwise noted. mg/kg

Hess Corporation - Former Port Reading Complex (HC-PR)
750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results at AOC-77 – Former Petroleum Solvents AST

Lab Sample ID: Diss Sampled: Diss Sample	Client Sample ID:			PSTF-SS-1	PSTF-SS-1	PSTF-SS-1	PSTF-SS-2	PSTF-SS-3
Matrix:	Lab Sample ID:		NJ Non-Residential	JB98804-7	JB98804-7R	JB98804-7U	JB98804-8	JB98804-9
Depth:	Date Sampled:		Direct Contact Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015
Commontation Charles	Matrix:			Soil	Soil	Soil	Soil	Soil
Acetore mg/kg NA ND (1.3)	Depth:			10.5-11.0 ft	10.5-11.0 ft	10.5-11.0 ft	6.5-7.0 ft	1.5-2.0 ft
Bertzene	GC/MS Volatiles (SW846 8260C)				<u> </u>		'
Benzenter mg/kg 5 ND (0.07) .	Acatona	ma/ka	NΔ		ND (1.3)		_	_
Sementable number mg/kg -								
Semondorm mg/kg 289 . NO (0.088) .			-				-	-
Semonder			3	-		-	_	-
Zestance (MEK)			280	-		-	-	-
Zeldanon (MEK) mg/hg 1100000 ND (0.13)			59	-		-	-	-
Carbon tetrachioride			44000	-	ND (1.1)	-	-	-
Colicotestane	Carbon disulfide	mg/kg	110000	-	ND (0.13)	-	-	-
Colsorolethane		mg/kg	2	-	ND (0.13)	-	-	-
Coloriomethane	Chlorobenzene	mg/kg	7400		3.97	-	-	-
Cyclohexane	Chloroethane	mg/kg	1100		ND (0.27)	-	-	-
Cyclohexane	Chloroform	mg/kg	2	-	ND (0.084)	-	-	-
12-Dibromo-3-chloropropane mg/kg 0.2	Chloromethane	mg/kg	12	-	ND (0.15)	-	-	-
Dibromochtoromethane	Cyclohexane	mg/kg	-	-	ND (0.18)	-	-	-
1,2-Dibromoethane	1,2-Dibromo-3-chloropropane	mg/kg	0.2	-	ND (0.31)	-	-	-
1,2-Dichlorobenzene	Dibromochloromethane	mg/kg	8	-	ND (0.12)	-	-	-
1,3-Dichlorobenzene		mg/kg		-	ND (0.074)	-	-	-
1.4-Dichlorobervene	1,2-Dichlorobenzene	mg/kg		-	190	-	-	-
Dichlorodifluoromehane	1,3-Dichlorobenzene			-		-	-	-
1.1-Dichloroethane								
1,2-Dichloroethane								
1.1-Dichloroethene								
Cis-1,2-Dichloroethene mg/kg 560 23.1 -	,				<u> </u>			
trans-1,2-Dichloroethene mg/kg 720 ND (0.34) - - - 1,2-Dichloropropane mg/kg 5 - ND (0.13) - - - 16s-1,3-Dichloropropene mg/kg 7 - ND (0.067) - - - Ethylbenzene mg/kg 7 - ND (0.10) - <t< td=""><td></td><td></td><td></td><td></td><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td></td><td></td></t<>					· · · · · · · · · · · · · · · · · · ·			
1,2-Dichloropropane mg/kg 5							_	
cis-1,3-Dichloropropene mg/kg 7 - ND (0.067) -					` '			1
trans-1,3-Dichloropropene mg/kg 7 - ND (0.10) - - - Ethylbenzene mg/kg 110000 - 59.8 - - - Freon 113 mg/kg - ND (0.25) - - - 2-Hexanone mg/kg - ND (0.76) - - - Isopropylbenzene mg/kg - - ND (0.76) - - - Methyl Acetate mg/kg - - ND (0.49) -								-
Ethylbenzene								
Freon 113								ļ
2-Hexanone								
Isopropylbenzene							_	ļ
Methyl Acetate mg/kg NA - ND (0.49) - - - Methyl Cyclohexane mg/kg - ND (0.13) - - - Methyl Terl Butyl Ether mg/kg 320 - ND (0.086) - - - 4-Methyl-2-pentanone(MIBK) mg/kg - ND (0.26) - - - - Methylene chloride mg/kg 97 - ND (0.55) - - - - - Methylene chloride mg/kg 260 - ND (0.055) -				-		-	-	-
Methylcyclohexane mg/kg - ND (0.13) - - - Methyl Tert Butyl Ether mg/kg 320 - ND (0.086) - - - 4-Methyl-2-pentanone(MIBK) mg/kg - - ND (0.26) - - - Methylene chloride mg/kg 97 - ND (0.55) -							-	
Methyl Tert Butyl Ether mg/kg 320 - ND (0.086) - - - 4-Methyl-2-pentanone(MIBK) mg/kg - ND (0.26) - - - Methylene chloride mg/kg 97 - ND (0.55) - - - Styrene mg/kg 260 - ND (0.00) - <td< td=""><td>•</td><td></td><td></td><td>-</td><td></td><td>_</td><td>-</td><td>_</td></td<>	•			-		_	-	_
4-Methyl-2-pentanone(MIBK) mg/kg - - ND (0.26) -			320		` '	1	_	-
Methylene chloride mg/kg 97 - ND (0.55) - - - Styrene mg/kg 260 - ND (0.10) - - - Tert Butyl Alcohol mg/kg 11000 - ND (1.5) - - - 1,1,2,2-Tetrachloroethane mg/kg 3 - ND (0.099) - <td></td> <td></td> <td>-</td> <td>-</td> <td><u> </u></td> <td>-</td> <td>-</td> <td>-</td>			-	-	<u> </u>	-	-	-
Styrene			97	-		-	-	-
Tert Butyl Alcohol			260	-		-	-	-
1,1,2,2-Tetrachloroethane	Tert Butyl Alcohol		11000	-		-	-	-
Toluene			3	-	ND (0.099)	-	<u>-</u>	-
1,2,3-Trichlorobenzene mg/kg - - 30.4 - - - 1.2,4-Trichlorobenzene mg/kg 820 - 250 -	Tetrachloroethene	mg/kg	5	-	1590	-	<u>-</u>	-
1,2,4-Trichlorobenzene mg/kg 820 - 250 - - - 1.1,1-Trichlorobenzene mg/kg 4200 - 0.218 J - - - - 1.1,2-Trichlorobenzene mg/kg 6 - ND (0.083) -	Toluene	mg/kg	91000	-	2.22	-	-	-
1,1,1-Trichloroethane mg/kg 4200 - 0.218 J - - - 1,1,2-Trichloroethane mg/kg 6 - ND (0.083) -	1,2,3-Trichlorobenzene			-		-	-	-
1,1,2-Trichloroethane mg/kg 6 - ND (0.083) - - - Trichloroethene mg/kg 20 - 10.2 - - - Trichloroftuoromethane mg/kg 340000 - ND (0.14) - - - Vinyl chloride mg/kg 2 - ND (0.11) - - - m,p-Xylene mg/kg 170000 - 200 - - - o-Xylene mg/kg 170000 - 78.3 - - - Xylene (total) mg/kg 170000 - 279 - - - GC/MS Volatile TIC Total TIC, Volatile mg/kg - - 8.8 J - - -				-		-	-	-
Trichloroethene mg/kg 20 - 10.2 - - - - Trichloroftuoromethane mg/kg 340000 - ND (0.14) -								
Trichlorofluoromethane mg/kg 340000 - ND (0.14) -								
Vinyl chloride mg/kg 2 - ND (0.11) - - - m,p-Xylene mg/kg 170000 - 200 - - - o-Xylene mg/kg 170000 - 78.3 - - - - Xylene (total) mg/kg 170000 - 279 - - - - GC/MS Volatile TIC Total TIC, Volatile mg/kg - - 8.8 J - - - -								
m,p-Xylene mg/kg 170000 - 200 - - - o-Xylene mg/kg 170000 - 78.3 - - - Xylene (total) mg/kg 170000 - 279 - - - GC/MS Volatile TIC Total TIC, Volatile mg/kg - - 8.8 J - - -								
o-Xylene mg/kg 170000 - 78.3 - - - Xylene (total) mg/kg 170000 - 279 - - - GC/MS Volatile TIC Total TIC, Volatile mg/kg - - 8.8 J - - -	•	_						
Xylene (total) mg/kg 170000 - 279 - - - GC/MS Volatile TIC Total TIC, Volatile mg/kg - - 8.8 J - - -								
GC/MS Volatile TIC								
Total TIC, Volatile mg/kg	Xylene (total)	mg/kg	170000	-	279	<u>-</u>	<u> </u>	<u>-</u> -
	GC/MS Volatile TIC							
	Total TIC, Volatile	mg/kg	-	-	8.8 J	-	-	-
Total minaries Imgreg - 11.10 - 1 - 1 -	Total Alkanes	mg/kg	-	-	11.1 J	-	-	-

Hess Corporation - Former Port Reading Complex (HC-PR)
750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results at AOC-77 – Former Petroleum Solvents AST

Client Sample ID:			PSTF-SS-1	PSTF-SS-1	PSTF-SS-1	PSTF-SS-2	PSTF-SS-3
Lab Sample ID:		NJ Non-Residential	JB98804-7	JB98804-7R	JB98804-7U	JB98804-8	JB98804-9
Date Sampled:		Direct Contact Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015
Matrix:			Soil	Soil	Soil	Soil	Soil
Depth:			10.5-11.0 ft	10.5-11.0 ft	10.5-11.0 ft	6.5-7.0 ft	1.5-2.0 ft
GC/MS Semi-volatiles (SW846 8	3270D)						
		0000		ND (0.077)			
2-Chlorophenol 4-Chloro-3-methyl phenol	mg/kg mg/kg	2200	-	ND (0.077) ND (0.19)	-	-	-
2,4-Dichlorophenol	mg/kg	2100	-	ND (0.19)	-	-	-
2,4-Dimethylphenol	mg/kg	14000	-	ND (0.19)	-	-	-
2,4-Dinitrophenol	mg/kg	1400	-	ND (0.19)	-	-	-
4,6-Dinitro-o-cresol	mg/kg	68	-	ND (0.19)	-	-	-
2-Methylphenol 3&4-Methylphenol	mg/kg mg/kg	3400	<u>-</u>	ND (0.077) ND (0.077)	-	-	-
2-Nitrophenol	mg/kg	-		ND (0.17)	_	_	-
4-Nitrophenol	mg/kg	-	-	ND (0.38)	-	-	-
Pentachlorophenol	mg/kg	10	-	ND (0.19)	-	-	-
Phenol	mg/kg	210000	-	ND (0.077)	-	-	-
2,3,4,6-Tetrachlorophenol	mg/kg	-	-	ND (0.19)	-	-	-
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	mg/kg	68000 74		ND (0.19) ND (0.19)	-	-	-
Acenaphthene	mg/kg mg/kg	37000		ND (0.19)	-		
Acenaphthylene	mg/kg	300000		ND (0.038)	-	-	-
Acetophenone	mg/kg	5	-	ND (0.19)	-	-	-
Anthracene	mg/kg	30000	-	ND (0.038)	-	-	-
Atrazine	mg/kg	2400	-	ND (0.077)	-	-	-
Benzo(a)anthracene Benzo(a)pyrene	mg/kg mg/kg	0.2	<u> </u>	0.0181 J ND (0.038)	-	-	-
Benzo(b)fluoranthene	mg/kg	0.2		0.0189 J	-	-	-
Benzo(g,h,i)perylene	mg/kg	30000	-	ND (0.038)	-	-	-
Benzo(k)fluoranthene	mg/kg	23	-	ND (0.038)	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	ND (0.077)	-	-	-
Butyl benzyl phthalate	mg/kg	14000	<u> </u>	ND (0.077)	-	-	-
1,1'-Biphenyl Benzaldehyde	mg/kg mg/kg	34000 68000	<u> </u>	0.0973 ND (0.19)	-	-	-
2-Chloronaphthalene	mg/kg	-	-	ND (0.077)	-	-	-
4-Chloroaniline	mg/kg	-	-	ND (0.19)	-	-	-
Carbazole	mg/kg	96	-	ND (0.077)	-	-	-
Caprolactam	mg/kg	340000	-	ND (0.077)	-	-	-
Chrysene	mg/kg	230	-	0.0427	-	-	-
bis(2-Chloroethoxy)methane bis(2-Chloroethyl)ether	mg/kg mg/kg	2		ND (0.077) ND (0.077)	-	-	-
bis(2-Chloroisopropyl)ether	mg/kg	67	-	ND (0.077)	-	_	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	ND (0.077)	-	-	-
2,4-Dinitrotoluene	mg/kg	3	-	ND (0.038)	-	-	-
2,6-Dinitrotoluene	mg/kg	3	-	ND (0.038)	-	-	-
3,3'-Dichlorobenzidine	mg/kg	4	-	ND (0.077)	-	-	-
1,4-Dioxane Dibenzo(a,h)anthracene	mg/kg	0.2	-	ND (0.038) ND (0.038)	-	-	-
Dibenzofuran	mg/kg mg/kg	-		0.0653 J	-	-	-
Di-n-butyl phthalate	mg/kg	68000	-	ND (0.077)	-	-	-
Di-n-octyl phthalate	mg/kg	27000	-	ND (0.077)	-	-	-
Diethyl phthalate	mg/kg	550000	-	ND (0.077)	-	-	-
Dimethyl phthalate	mg/kg	140	-	ND (0.077)	-	-	-
bis(2-Ethylhexyl)phthalate Fluoranthene	mg/kg mg/kg	140 24000	-	0.0765 J 0.0513	-	-	-
Fluorene	mg/kg	24000		0.0651	-	-	-
Hexachlorobenzene	mg/kg	1	-	ND (0.077)	-	-	-
Hexachlorobutadiene	mg/kg	25	-	ND (0.038)	-	-	-
Hexachlorocyclopentadiene	mg/kg	110	-	ND (0.38)	-	-	-
Hexachloroethane	mg/kg	140	-	ND (0.19)	-	-	-
Indeno(1,2,3-cd)pyrene Isophorone	mg/kg mg/kg	2 2000	-	ND (0.038) ND (0.077)	-	-	-
2-Methylnaphthalene	mg/kg	2400		1.26	-	-	-
2-Nitroaniline	mg/kg	23000	-	ND (0.19)	-	-	-
3-Nitroaniline	mg/kg	<u>-</u>	-	ND (0.19)			-
4-Nitroaniline	mg/kg	-	-	ND (0.19)	-	-	-
Naphthalene	mg/kg	17	-	0.185	-	-	-
Nitrobenzene	mg/kg	340	-	ND (0.077)	-	-	-
	mg/kg	0.3		ND (0.077) ND (0.19)	-	-	-
N-Nitroso-di-n-propylamine	ma/ka						
N-Nitrosodiphenylamine	mg/kg ma/ka	390 300000	-		_	-	
	mg/kg mg/kg mg/kg	300000 18000		0.218 0.0553	-	-	-

Table 4-1

Hess Corporation - Former Port Reading Complex (HC-PR) 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC-77 – Former Petroleum Solvents AST

Client Sample ID:			PSTF-SS-1	PSTF-SS-1	PSTF-SS-1	PSTF-SS-2	PSTF-SS-3
Lab Sample ID:		NJ Non-Residential	JB98804-7	JB98804-7R	JB98804-7U	JB98804-8	JB98804-9
Date Sampled:		Direct Contact Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015
Matrix:			Soil	Soil	Soil	Soil	Soil
Depth:			10.5-11.0 ft	10.5-11.0 ft	10.5-11.0 ft	6.5-7.0 ft	1.5-2.0 ft
GC/MS Semi-volatile TIC							
Total TIC, Semi-Volatile	mg/kg	-	-	26.6 J	-	-	-
GC Semi-volatiles (NJDEP I	EPH)						
EPH (C9-C28)	mg/kg	-	-	-	-	-	-
EPH (>C28-C40)	mg/kg	-	-	-	-	-	-
Total EPH (C9-C40)	mg/kg	-	-	-	-	-	-
C10-C12 Aromatics	mg/kg	-	20.4	-	-	ND (0.14)	36.3
C12-C16 Aromatics	mg/kg	-	16.7	-	-	ND (0.22)	ND (0.22)
C16-C21 Aromatics	mg/kg	-	54.4	-	-	ND (0.47)	ND (0.47)
C21-C36 Aromatics	mg/kg	-	48.3	-	-	ND (0.57)	ND (0.57)
Total Aromatics	mg/kg	-	140	-	-	ND (0.14)	36.3
C9-C12 Aliphatics	mg/kg	-	70.1	-	-	ND (0.13)	323
C12-C16 Aliphatics	mg/kg	-	90.8	-	-	ND (0.13)	ND (0.13)
C16-C21 Aliphatics	mg/kg		109	-	-	ND (0.23)	ND (0.23)
C21-C40 Aliphatics	mg/kg		92.8	-	-	ND (1.3)	ND (1.3)
Total Aliphatics	mg/kg	-	362	-	-	ND (0.13)	323
Total EPH	mg/kg	-	502	-	-	ND (0.13)	359
GC Semi-volatiles (SW846 8	8082A)						
Aroclor 1016	mg/kg	1	-	ND (0.013)	-	-	-
Aroclor 1221	mg/kg	1	-	ND (0.023)	-	-	-
Aroclor 1232	mg/kg	1	-	ND (0.013)	-	-	-
Aroclor 1242	mg/kg	1	-	ND (0.018)	-	-	-
Aroclor 1248	mg/kg	1	-	ND (0.012)	-	-	-
Aroclor 1254	mg/kg	1	-	ND (0.018)	-	-	-
Aroclor 1260	mg/kg	1	-	ND (0.017)	-	-	-
Aroclor 1268	mg/kg	1	-	ND (0.012)	-	-	-
Aroclor 1262	mg/kg	1	-	ND (0.011)	-	-	-

Table 4-1

Hess Corporation - Former Port Reading Complex (HC-PR) 750 Cliff Road, Port Reading, New Jersey

Summary of Soil Analytical Results at AOC-77 – Former Petroleum Solvents AST

Client Sample ID:			PSTF-SS-1	PSTF-SS-1	PSTF-SS-1	PSTF-SS-2	PSTF-SS-3	
Lab Sample ID:		NJ Non-Residential	JB98804-7	JB98804-7R	JB98804-7U	JB98804-8	JB98804-9	
Date Sampled:		Direct Contact Soil	7/8/2015	7/8/2015	7/8/2015	7/8/2015	7/8/2015	
Matrix:			Soil	Soil	Soil	Soil	Soil	
Depth:			10.5-11.0 ft	10.5-11.0 ft	10.5-11.0 ft	6.5-7.0 ft	1.5-2.0 ft	
Metals Analysis								
Aluminum	mg/kg	NA	-	12700	-	-	I -	
Antimony	mg/kg	450		<2.5	_	_	_	
Arsenic	mg/kg	19	-	6.7	-	-	-	
Barium	mg/kg	59000	-	72.9	-	-	-	
Beryllium	mg/kg	140	-	1	-	-	-	
Cadmium	mg/kg	78	-	<0.62	-	_	-	
Calcium	mg/kg	-	-	1650	_	_	_	
Chromium	mg/kg	-	-	26.5	-	-	-	
Chromium, Hexavalent	mg/kg	-	-	-	<0.48	-	_	
Cobalt	mg/kg	590	_	14.2	-	-	-	
Copper	mg/kg	45000	_	49.2	-	-	-	
ron	mg/kg	-	-	27800	-	-	-	
_ead	mg/kg	800	-	12.6	-	-	-	
Magnesium	mg/kg	-	-	6070	-	-	-	
Manganese	mg/kg	5900	-	392	-	-	-	
Mercury	mg/kg	65	-	< 0.035	-	-	-	
Nickel	mg/kg	23000	-	30.3	-	-	-	
Potassium	mg/kg	-	-	2620	-	-	-	
Selenium	mg/kg	5700	-	<2.5	-	-	-	
Silver	mg/kg	5700	-	< 0.62	-	-	-	
Sodium	mg/kg	-	-	<1200	-	-	-	
Sulfur	mg/kg	-	-	-	-	-	-	
Thallium	mg/kg	79	-	<1.2	-	-	-	
/anadium	mg/kg	1100	-	31	-	-	-	
inc	mg/kg	110000	-	69.1	-	-	-	
General Chemistry								
Redox Potential Vs H2	mv	-	-	-	524	-	-	
Solids, Percent	%	-	83.7	-	-	86.3	86.1	
ρΗ	su	-	-	_	6.21	-	-	

All results in mg/kg unless otherwise noted.
mg/kg milligrams
J Estimated
NS Not Samp milligrams per kilogram Estimated Value Not Sampled ND Not Detected NA Not Analyzed () B ** Method Detection Limit Compound Found in Blank

Health based standard defaults to soil saturation limit

Result is from 2nd run Result is from 2nd run

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) 750 Ciiff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 80 - Former Crude Topping Unit

Description Proceedings Procedure	Client Sample ID:		NJ Non-	CTU-SS-1	CTU-SS-1	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-3	CTU-SS-3	CTU-SS-4	CTU-SS-5	CTU-SS-5	CTU-SS-6
Marrier			Residential Direct Contact												
Color Colo		_	Soil												
Accision		4													
Acctonce	Бериі.			0.5-7.010	0.0-7.011	3.0-3.5 It	3.0-3.3 10	3.0-3.3 10	3.0-3.311	3.0-3.5 10	3.0-3.5 It	4.000 10	5.5-4.0 It	3.5-4.0 It	5.5-4.0 It
Sename	GC/MS Volatiles (SW846 82600	GC/MS Volatiles (SW846 8260C)													
Sename	Acetone	ma/ka	NA	ND (0.0098)		ND (0.49)	-		-	ND (0.55)	-	0.0068 J	0.0897	-	ND (1.1)
Simondeformer Program				-		-	-	-		-			-		
Billionscheff	Bromochloromethane			ND (0.0049)		ND (0.25)	-	-		ND (0.27)	-	ND (0.0047)	ND (0.0049)	-	ND (0.55)
Secondariane mg/kg 59	Bromodichloromethane			ND (0.0020)	-	ND (0.099)	-	-	-		-			-	
Selection (MEC)					-		-	-	-		-			-	
Carbon desirable					-		-	-	-		-			-	
Carbon InterNational mg/hg 2															
Chroredmene mg/kg 1900 000997 J . 151					-		-	-	-		-			-	
Chrosophare					-		-	-	-		-			-	
Checomestume mg/kg 12 NG (0.0049) ND (0.0059)					-		-		-		-			-	
Chromerature					-		-	-	-		-			-	
Cycoheane					-		-	-	-		-			-	
12-Defendent-series mg/kg 0.2 ND (0.0020) ND (0.0099)	Cyclohexane		-	ND (0.0020)	-	0.141	-	-	-	ND (0.11)	-	ND (0.0019)	0.00044 J	-	0.129 J
12-Deinomethane	1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.0020)	-	ND (0.099)	-	-	-	ND (0.11)	-	ND (0.0019)	ND (0.0019)	-	ND (0.22)
13.2-Deh/orbotherzene					-				-					-	
13-Dehrorberezene mg/kg 550000 ND (0.0098) - 0.441 - 0.0522 - ND (0.0098) ND (0.00997) - ND (0.11)					-		-	-	-		-			-	
1.4-Dichrorobenzene mg/kg 23000 N0 (0.0098) N0 (-		-	-	-		-			-	
Dichtorodifikoromethane															
13-Dehkrorethane							-		-						
1.2-Dichirocethane					-		-	-	-						
1.1-Dichrorethene											-			-	
Ciscle Composition Compo							-	-			-			-	
trans-12-Dichloroethene mg/kg 720 ND (0.0098) ND (0.099) - ND (0.005) ND (0.0097) - ND (0.011) 1.2-Dichloropropene mg/kg 5 ND (0.0020) ND (0.099) - - ND (0.011) - ND (0.0019) ND (0.0019					-		-	-	-		-			-	
Cast 13-0 Chicknorproper mg/kg 7	trans-1,2-Dichloroethene		720	ND (0.00098)	-	ND (0.049)	-	-	-	ND (0.055)	-	ND (0.00094)	ND (0.00097)	-	ND (0.11)
trans-13-Dichforopropene mg/kg 7 ND (0.0020) - ND (0.009) - ND (0.011) - ND (0.019) ND (0.0019) - ND (0.019) ND (0.0019) ND (0.0019) - ND (0.0019) ND (0.0019) - ND (0.0017) ND (0.0017) ND (0.0019) - ND (0.0017) ND (0.0017) ND (0.0017) ND (0.0019) - ND (0.0017) ND (0.0019) - ND (0.0017)	1,2-Dichloropropane	mg/kg	5	ND (0.0020)		ND (0.099)	-	-	-	ND (0.11)	-	ND (0.0019)	ND (0.0019)	-	ND (0.22)
Elhybenzene mg/kg		mg/kg					-	-			-				
Freon 113											-				
2-Hexanone mg/kg					-		-	-	-		-				
Sopropybenzene mg/kg NB ND (0.0020) 1.24 0.0884 J - ND (0.0019) 0.00038 J - 0.465 Methyly Acstate mg/kg NB ND (0.0049) ND (0.0055) ND (0.027) ND (0.0049) ND (0.0049) - ND (0.055) NEthylcyclohexane mg/kg - ND (0.0020) - 20.8 ND (0.011) - ND (0.0019) 0.0028 - 1.79 ND (0.0049) - ND (0.055) - ND (0.0055) - ND (0.0055) - ND (0.0057) ND (0.0097) - ND (0.011) - ND (0.0058) -															
Methy Acetate							-								
Methylocytohexane							-								
Methyl Ether			INA												
Audethyd-penfanone(MIBK) mg/kg - ND (0.0049) - ND (0.25) ND (0.27) - ND (0.0047) ND (0.0049) - ND (0.55)			320		-						-				
Methylene chloride			-		-		-	-	-		-			-	
Syrene			97		-		-	-	-		-			-	
Tetrachrorethene	Styrene		260	ND (0.0020)		ND (0.099)	-	-		ND (0.11)	-		ND (0.0019)	-	
Toluene	1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.0020)	-	ND (0.099)	-	-	-	ND (0.11)	-	ND (0.0019)	ND (0.0019)	-	ND (0.22)
1,2,3-Trichlorobenzene mg/kg - ND (0.049) - ND (0.25) - - ND (0.27) - ND (0.0047) ND (0.0049) - ND (0.55) 1,2,4-Trichlorobenzene mg/kg 820 ND (0.0049) - ND (0.25) - - ND (0.27) - ND (0.0047) ND (0.0049) - ND (0.025) - - ND (0.27) - ND (0.0047) ND (0.005) - ND (0.011) - ND (0.0019) ND (0.005) - ND (0.0011) - ND (0.0019) ND (0.0019) - - ND (0.011) - ND (0.0019) ND (0.0021) - ND (0.0021) ND (0.0021) ND (0.0021) ND (0.0021) ND (0.0021) ND (0.0021) ND (0.0022) ND (0.0021) ND (0.0021) ND (0.0021) ND (0.0021) ND (0.0021) ND (0.0021) <td< td=""><td></td><td></td><td></td><td></td><td>-</td><td></td><td>-</td><td>-</td><td>-</td><td></td><td>-</td><td></td><td></td><td>-</td><td></td></td<>					-		-	-	-		-			-	
1,2,4-Tichlorobenzene mg/kg 820 ND (0.0049) - ND (0.25) - - ND (0.27) - ND (0.0047) ND (0.0049) - ND (0.55) - ND (0.011) - ND (0.021) ND (0.0049) - ND (0.021) ND (0.009) ND (0.009)					-		-	-	-		-			-	
1.1.1-Trichforcethane															
1.1.2-Trichforcethane mg/kg 6 ND (0.0020) ND (0.0099) - - ND (0.11) - ND (0.019) ND (0.0019) - ND (0.022)							-		-		-				
Tichloroetherne mg/kg 20							-		-		-				
Trichlorofluoromethane mg/kg 340000 ND (0.049) ND (0.25) - - ND (0.27) - ND (0.049) - ND (0.55) Vinyl chloride mg/kg 2 ND (0.0020) - ND (0.099) - - ND (0.011) - ND (0.0019) ND (0.0019) - ND (0.0021) m,p-Xylene mg/kg 170000 ND (0.0098) - ND (0.049) - - ND (0.055) - ND (0.0094) 0.0148 - 3.61 o-Xylene mg/kg 170000 ND (0.0098) - 0.0244 J - - ND (0.055) - ND (0.0094) 0.052 - 0.983 J Kylene (total) mg/kg 170000 ND (0.0098) - 0.0244 J - - ND (0.055) - ND (0.0094) 0.052 - 0.983 J GC/MS Volatile TiC Total TiC, Volatile mg/kg - 0 - 390 J - - 152.3 J - 0 0.1705 J					-		-	-	-		-			-	
Viny chloride mg/kg 2 ND (0.020) - - - ND (0.11) - ND (0.0919) - ND (0.022) mp. Eyglene mg/kg 170000 ND (0.0098) - ND (0.0555) - ND (0.0555) - ND (0.0094) 0.0148 - 3.61 e-Xylene mg/kg 170000 ND (0.0098) - 0.0244 J - - ND (0.055) - ND (0.0094) 0.0052 - 0.0983 J Xylene (total) mg/kg 170000 ND (0.0098) - 0.0244 J - - ND (0.055) - ND (0.0094) 0.0052 - 0.0983 J Xylene (total) mg/kg 170000 ND (0.0098) - 0.0244 J - - ND (0.055) - ND (0.0094) 0.022 - 3.71 GC/MS Volatile TiC Total TiC, Volatile mg/kg - 0 - - - 152.3 J - 0 0.1705 J - 80.4 J<											-			-	
m_p-Xylene															
o-Xylene mg/kg 170000 ND (0.0098) - 0.0244 J ND (0.055) - ND (0.0094) 0.0052 - 0.0983 J Xylene (total) mg/kg 170000 ND (0.0098) - 0.0244 J ND (0.055) - ND (0.0094) 0.002 - 3.71 GC/MS Volatile TIC Total TIC, Volatile mg/kg - 0 - 390 J 152.3 J - 0 0.1705 J - 80.4 J Total Alkanes mg/kg - 0 - 0 27 J - 0 0 - 69.7 J															
Xyfene (total) mg/kg 170000 ND (0.0098) - 0.0244 J - - ND (0.055) - ND (0.0094) 0.02 - 3.71 GC/MS Volatile TIC Total TIC, Volatile mg/kg - 0 - 390 J - - - 152.3 J - 0 0.1705 J - 80.4 J Total Alkanes mg/kg - 0 - 0 - 69.7 J							-				-				
GC/MS Volatile TIC Total TIC, Volatile mg/kg - 0 - 390 J - - 152.3 J - 0 0.1705 J - 80.4 J Total Alkanes mg/kg - 0 - 0 - - 27 J - 0 0 - 69.7 J					-		-	-	-		-			-	
Total TIC, Volatile mg/kg - 0 - 390 J 152.3 J - 0 0.1705 J - 80.4 J Total Alkanes mg/kg - 0 - 0 27 J - 0 0 - 69.7 J	, ,														
Total Alkanes mg/kg - 0 - 0 27 J - 0 0 - 69.7 J	GC/MS Volatile TIC														
	Total TIC, Volatile	mg/kg	-	0	-	390 J	-	-	-	152.3 J	-	0	0.1705 J	-	80.4 J
Total Alkanes mg/kg			-	0	-	0	-	-	-	27 J	-	0	0	-	69.7 J
	Total Alkanes	mg/kg	-		-	-	-	-	-	-	-	-	-	-	-

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 80 - Former Crude Topping Unit

Client Sample ID:		NJ Non- Residential	CTU-SS-1	CTU-SS-1	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-3	CTU-SS-3	CTU-SS-4	CTU-SS-5	CTU-SS-5	CTU-SS-6
Lab Sample ID: Date Sampled:	4	Direct Contact	JB99546-1 7/20/2015	JB99546-1T 7/20/2015	JB99428-1 7/16/2015	JB99428-1R 7/16/2015	JB99428-1T 7/16/2015	JB99428-1TU 7/16/2015	JB99428-3 7/17/2015	JB99428-3R 7/17/2015	JB99429-6 7/16/2015	JB99429-4 7/16/2015	JB99429-4T 7/16/2015	JB99428-2 7/17/2015
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			6.5-7.0 ft	6.5-7.0 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	4.550 ft	3.5-4.0 ft	3.5-4.0 ft	3.5-4.0 ft
GC/MS Semi-volatiles (SW846	8270D)													
0.011	1	0000	ND (0.070)		ND (0.074)				L ND (0.44)		ND (0.074)	ND (0.070)	1	ND (0.000)
2-Chlorophenol 4-Chloro-3-methyl phenol	mg/kg mg/kg	2200	ND (0.072) ND (0.18)	-	ND (0.071) ND (0.18)	-	-		ND (0.14) ND (0.36)	-	ND (0.074) ND (0.19)	ND (0.078) ND (0.19)	-	ND (0.069) ND (0.17)
2,4-Dichlorophenol	mg/kg	2100	ND (0.18)	-	ND (0.18)	-		-	ND (0.36)	-	ND (0.19)	ND (0.19)		ND (0.17)
2,4-Dimethylphenol	mg/kg	14000 1400	ND (0.18) ND (0.18)	-	ND (0.18) ND (0.18)	-	-	-	ND (0.36) ND (0.36)	-	ND (0.19)	ND (0.19) ND (0.19)	-	ND (0.17) ND (0.17)
2,4-Dinitrophenol 4,6-Dinitro-o-cresol	mg/kg mg/kg	68	ND (0.18)	-	ND (0.18)	-			ND (0.36)	-	ND (0.19) ND (0.19)	ND (0.19)	-	ND (0.17) ND (0.17)
2-Methylphenol	mg/kg	3400	ND (0.072)	-	ND (0.071)	-		-	ND (0.14)	-	ND (0.074)	ND (0.078)		ND (0.069)
3&4-Methylphenol 2-Nitrophenol	mg/kg mg/kg	-	ND (0.072) ND (0.18)	-	ND (0.071) ND (0.18)	-	-	- :	ND (0.14) ND (0.36)	-	ND (0.074) ND (0.19)	ND (0.078) ND (0.19)	-	ND (0.069) ND (0.17)
4-Nitrophenol	mg/kg	-	ND (0.16)	-	ND (0.16)	-	-		ND (0.72)	-	ND (0.19)	ND (0.19)	-	ND (0.17)
Pentachlorophenol	mg/kg	10	ND (0.18)	-	ND (0.18)	-	-	-	ND (0.36)	-	ND (0.19)	ND (0.19)	-	ND (0.17)
Phenol 2,3,4,6-Tetrachlorophenol	mg/kg mg/kg	210000	ND (0.072) ND (0.18)	-	ND (0.071) ND (0.18)	-	-	-	ND (0.14) ND (0.36)	-	ND (0.074) ND (0.19)	ND (0.078) ND (0.19)	-	ND (0.069) ND (0.17)
2,4,5-Trichlorophenol	mg/kg	68000	ND (0.18)	-	ND (0.18)	-	-	-	ND (0.36)	-	ND (0.19)	ND (0.19)	-	ND (0.17)
2,4,6-Trichlorophenol	mg/kg	74	ND (0.18)	-	ND (0.18)	-	-	-	ND (0.36)	-	ND (0.19)	ND (0.19)	-	ND (0.17)
Acenaphthene Acenaphthylene	mg/kg mg/kg	37000 300000	ND (0.036) ND (0.036)	-	1.01 ND (0.036)	-	-		0.252 ND (0.072)	-	ND (0.037) ND (0.037)	ND (0.039) ND (0.039)	-	0.0704 ND (0.034)
Acetophenone	mg/kg	5	ND (0.030)	-	ND (0.030)	-	-	-	ND (0.36)	-	ND (0.037)	ND (0.039)	-	ND (0.034)
Anthracene	mg/kg	30000	ND (0.036)	-	ND (0.036)	-		-	ND (0.072)	-	ND (0.037)	ND (0.039)	-	0.0568
Atrazine Benzo(a)anthracene	mg/kg mg/kg	2400	ND (0.072) ND (0.036)	-	ND (0.071) 0.0293 J	-	-	-	ND (0.14) ND (0.072)	-	ND (0.074) ND (0.037)	ND (0.078) ND (0.039)	-	ND (0.069) 0.0532
Benzo(a)pyrene	mg/kg	0.2	ND (0.036)	-	ND (0.036)	-	-	-	ND (0.072)	-	ND (0.037)	ND (0.039)	-	0.0258 J
Benzo(b)fluoranthene	mg/kg	2	ND (0.036)	-	0.0157 J	-		-	ND (0.072)	-	ND (0.037)	ND (0.039)		0.0157 J
Benzo(g,h,i)perylene Benzo(k)fluoranthene	mg/kg mg/kg	30000 23	ND (0.036) ND (0.036)	-	ND (0.036) ND (0.036)	-	-	-	ND (0.072) ND (0.072)	-	ND (0.037) ND (0.037)	ND (0.039) ND (0.039)	-	0.0143 J ND (0.034)
4-Bromophenyl phenyl ether	mg/kg	-	ND (0.030)	-	ND (0.030)	-	-	-	ND (0.072)	-	ND (0.074)	ND (0.039)	-	ND (0.054)
Butyl benzyl phthalate	mg/kg	14000	ND (0.072)	-	ND (0.071)	-	-	-	ND (0.14)	-	ND (0.074)	ND (0.078)	-	ND (0.069)
1,1'-Biphenyl Benzaldehyde	mg/kg mg/kg	34000 68000	ND (0.072) ND (0.18)	-	ND (0.071) ND (0.18)	-	-		ND (0.14) ND (0.36)	-	ND (0.074) ND (0.19)	ND (0.078) ND (0.19)	-	0.0338 J ND (0.17)
2-Chloronaphthalene	mg/kg	-	ND (0.16)	-	ND (0.18)	-	-		ND (0.14)	-	ND (0.19)	ND (0.078)	-	ND (0.069)
4-Chloroaniline	mg/kg	-	ND (0.18)	-	ND (0.18)	-		-	ND (0.36)	-	ND (0.19)	ND (0.19)		ND (0.17)
Carbazole Caprolactam	mg/kg mg/kg	96 340000	ND (0.072) ND (0.072)	-	ND (0.071) ND (0.071)	-		-	ND (0.14) ND (0.14)	-	ND (0.074) ND (0.074)	ND (0.078) ND (0.078)	-	ND (0.069) ND (0.069)
Chrysene	mg/kg	230	ND (0.036)	-	0.0653	-	-	-	ND (0.072)	-	ND (0.037)	ND (0.039)	-	0.113
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.072)	-	ND (0.071)	-		-	ND (0.14)	-	ND (0.074)	ND (0.078)		ND (0.069)
bis(2-Chloroethyl)ether bis(2-Chloroisopropyl)ether	mg/kg mg/kg	2 67	ND (0.072) ND (0.072)	-	ND (0.071) ND (0.071)	-		-	ND (0.14) ND (0.14)	-	ND (0.074) ND (0.074)	ND (0.078) ND (0.078)	-	ND (0.069) ND (0.069)
4-Chlorophenyl phenyl ether	mg/kg	-	ND (0.072)	-	ND (0.071)	-	-	-	ND (0.14)	-	ND (0.074)	ND (0.078)	-	ND (0.069)
2,4-Dinitrotoluene	mg/kg	3	ND (0.036)	-	ND (0.036)	-		-	ND (0.072)	-	ND (0.037)	ND (0.039)		ND (0.034)
2,6-Dinitrotoluene 3,3'-Dichlorobenzidine	mg/kg mg/kg	3	ND (0.036) ND (0.072)	-	ND (0.036) ND (0.071)	-	-	-	ND (0.072) ND (0.14)	-	ND (0.037) ND (0.074)	ND (0.039) ND (0.078)	-	ND (0.034) ND (0.069)
1,4-Dioxane	mg/kg	-	ND (0.036)	-	ND (0.036)	-	-	-	ND (0.072)	-	ND (0.037)	ND (0.039)	-	ND (0.034)
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.036)	-	ND (0.036)	-		-	ND (0.072)	-	ND (0.037)	ND (0.039)		ND (0.034)
Dibenzofuran Di-n-butyl phthalate	mg/kg mg/kg	68000	ND (0.072) ND (0.072)	-	0.835 ND (0.071)	-	-		ND (0.14) ND (0.14)	-	ND (0.074) ND (0.074)	ND (0.078) ND (0.078)	-	ND (0.069) ND (0.069)
Di-n-octyl phthalate	mg/kg	27000	ND (0.072)	-	ND (0.071)	-		-	ND (0.14)	-	ND (0.074)	ND (0.078)	-	ND (0.069)
Diethyl phthalate	mg/kg	550000	ND (0.072)	-	ND (0.071)	-		-	ND (0.14)	-	ND (0.074)	ND (0.078)		ND (0.069)
Dimethyl phthalate bis(2-Ethylhexyl)phthalate	mg/kg mg/kg	140	ND (0.072) ND (0.072)	- :	ND (0.071) 0.414	-			ND (0.14) 0.108 J	- :	ND (0.074) ND (0.074)	ND (0.078) ND (0.078)	-	ND (0.069) ND (0.069)
Fluoranthene	mg/kg	24000	ND (0.036)	-	0.0578	-		-	0.0378 J	-	ND (0.037)	ND (0.039)	-	0.0301 J
Fluorene	mg/kg	24000	ND (0.036)	-	2.68	-		-	0.706	-	ND (0.037)	ND (0.039)		0.0863
Hexachlorobenzene Hexachlorobutadiene	mg/kg mg/kg	1 25	ND (0.072) ND (0.036)	-	ND (0.071) ND (0.036)	-	-		ND (0.14) ND (0.072)	-	ND (0.074) ND (0.037)	ND (0.078) ND (0.039)	-	ND (0.069) ND (0.034)
Hexachlorocyclopentadiene	mg/kg	110	ND (0.36)	-	ND (0.36)	-		-	ND (0.72)	-	ND (0.37)	ND (0.39)	-	ND (0.34)
Hexachloroethane	mg/kg	140	ND (0.18)	-	ND (0.18)	-		-	ND (0.36)	-	ND (0.19)	ND (0.19)		ND (0.17)
Indeno(1,2,3-cd)pyrene Isophorone	mg/kg mg/kg	2000	ND (0.036) ND (0.072)	-	ND (0.036) ND (0.071)	-	-	- :	ND (0.072) ND (0.14)	-	ND (0.037) ND (0.074)	ND (0.039) ND (0.078)	-	ND (0.034) ND (0.069)
2-Methylnaphthalene	mg/kg	2400	ND (0.072)	-	15.7	-	-	-	0.179	-	ND (0.074)	0.0377 J	-	12.4
2-Nitroaniline	mg/kg	23000	ND (0.18)	-	ND (0.18)	-	-		ND (0.36)	-	ND (0.19)	ND (0.19)	-	ND (0.17)
3-Nitroaniline 4-Nitroaniline	mg/kg mg/kg	-	ND (0.18) ND (0.18)	-	ND (0.18) ND (0.18)	-			ND (0.36) ND (0.36)	-	ND (0.19) ND (0.19)	ND (0.19) ND (0.19)	-	ND (0.17) ND (0.17)
Naphthalene	mg/kg	17	ND (0.036)	-	ND (0.036)	-	-	-	ND (0.072)	-	ND (0.037)	0.0222 J		5.88
Nitrobenzene	mg/kg	340	ND (0.072)	-	ND (0.071)	-	-	-	ND (0.14)	-	ND (0.074)	ND (0.078)	-	ND (0.069)
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	mg/kg mg/kg	0.3 390	ND (0.072) ND (0.18)	-	ND (0.071) ND (0.18)	-	-		ND (0.14) ND (0.36)	-	ND (0.074) ND (0.19)	ND (0.078) ND (0.19)	-	ND (0.069) ND (0.17)
Phenanthrene	mg/kg	300000	ND (0.036)	-	5.55	-	-	-	1.32	-	0.0176 J	ND (0.039)		0.384
Pyrene	mg/kg	18000	ND (0.036)	-	0.232	-	-	-	0.0829	-	0.0167 J	ND (0.039)	-	0.205
1,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.18)	-	ND (0.18)	-	-	-	ND (0.36)	-	ND (0.19)	ND (0.19)	-	ND (0.17)

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) 750 Ciiff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 80 - Former Crude Topping Unit

Client Sample ID:		NJ Non- Residential	CTU-SS-1	CTU-SS-1	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-3	CTU-SS-3	CTU-SS-4	CTU-SS-5	CTU-SS-5	CTU-SS-6
Lab Sample ID:		Direct Contact	JB99546-1	JB99546-1T	JB99428-1	JB99428-1R	JB99428-1T	JB99428-1TU	JB99428-3	JB99428-3R	JB99429-6	JB99429-4	JB99429-4T	JB99428-2
Date Sampled:		Soil	7/20/2015	7/20/2015	7/16/2015	7/16/2015	7/16/2015	7/16/2015	7/17/2015	7/17/2015	7/16/2015	7/16/2015	7/16/2015	7/17/2015
Matrix:		00	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			6.5-7.0 ft	6.5-7.0 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	4.550 ft	3.5-4.0 ft	3.5-4.0 ft	3.5-4.0 ft
GC/MS Semi-volatile TIC														
GC/WS Semi-volatile TiC														
Total TIC. Semi-Volatile	mg/kg		0		53.6 J				68.5 J		4.43 J	0.68 J		37.3 J
Total Alkanes	mg/kg	-	0	-	12 J	-	-	-	80.2 J	-	4.43 J	U.00 J	-	7.15 J
Total Alkanes		-			12 J				- 00.2 3		0.00026 J	0		7.100
Total Aikanes	mg/kg	-	-	-	-	-	-	-		-	0.00026 J	U	-	-
GC Semi-volatiles (NJDEP E														
EPH (C9-C28)	mg/kg	-	-	-	-	-	5880	-	-	-	-	-	-	-
EPH (>C28-C40)	mg/kg	-	-	-	-	-	195	-	-	-	-	-	-	-
Total EPH (C9-C40)	mg/kg	-		-		-	6080		-	-			-	
C10-C12 Aromatics	mg/kg	-	ND (6.0)	-	56.5	-	-	90.3	ND (5.9)	-	ND (5.9)	ND (5.9)		123
C12-C16 Aromatics	mg/kg	-	ND (6.0)	-	387	-	-	548	63.7		ND (5.9)	ND (5.9)	-	59.3
C16-C21 Aromatics	mg/kg	-	ND (6.0)	-	869	-	-	1240	230	-	ND (5.9)	ND (5.9)	-	22.6
C21-C36 Aromatics	mg/kg	-	ND (6.0)	-	133	-	-	174	50.4		33.8	ND (5.9)	-	41.2
Total Aromatics	mg/kg	-	ND (6.0)	-	1450	-	-	2050	344		33.8	ND (5.9)	-	246
C9-C12 Aliphatics	mg/kg	-	ND (6.0)	-	201	-	-	321	90.1	-	ND (5.9)	ND (5.9)	-	80.6
C12-C16 Aliphatics	mg/kg	-	ND (6.0)	-	806	-	-	1120	398	-	ND (5.9)	ND (5.9)	-	28.3
C16-C21 Aliphatics	mg/kg	-	ND (6.0)	-	775	-	-	1200	403	-	28	ND (5.9)	-	ND (5.2)
C21-C40 Aliphatics	mg/kg	-	ND (6.0)	-	201	-	-	334	90	-	135	ND (5.9)	-	16.3
Total Aliphatics	mg/kg	-	ND (6.0)	-	1980	-	-	2980	980	-	163	ND (5.9)	-	125
Total EPH	mg/kg	-	ND (6.0)	-	3430	-	-	5020	1320	-	197	ND (5.9)	-	371
GC Semi-volatiles (SW846 8	3082A)													
Aroclor 1016	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1221	mg/kg	1	-	-	-	-	-	-	-	-	-		-	
Aroclor 1232	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1242	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	
Aroclor 1248	mg/kg	1	-	-	-	-	-	-	-	-	-		-	-
Aroclor 1254	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1260	ma/ka	1	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1268	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1262	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	_

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 80 - Former Crude Topping Unit

Client Sample ID:		NJ Non-	CTU-SS-1	CTU-SS-1	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-2	CTU-SS-3	CTU-SS-3	CTU-SS-4	CTU-SS-5	CTU-SS-5	CTU-SS-6
Lab Sample ID:		Residential	JB99546-1	JB99546-1T	JB99428-1	JB99428-1R	JB99428-1T	JB99428-1TU	JB99428-3	JB99428-3R	JB99429-6	JB99429-4	JB99429-4T	JB99428-2
Date Sampled:		Direct Contact	7/20/2015	7/20/2015	7/16/2015	7/16/2015	7/16/2015	7/16/2015	7/17/2015	7/17/2015	7/16/2015	7/16/2015	7/16/2015	7/17/2015
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			6.5-7.0 ft	6.5-7.0 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	3.0-3.5 ft	4.550 ft	3.5-4.0 ft	3.5-4.0 ft	3.5-4.0 ft
Metals Analysis														
Aluminum	mg/kg	NA	11100	-	8370	-		-	8270	-	5720	15300	-	8970
Antimony	mg/kg	450	ND (2.3)		ND (2.2)		-	-	ND (2.2)	-	ND (2.3)	ND (2.3)	-	ND (2.1)
Arsenic	mg/kg	19	4.5	-	7.8	-	-	-	6.5	-	4.8	7.7	-	ND (2.1)
Barium	mg/kg	59000	56.9	-	41.5	-	-	-	53.7	-	33.5	54.1	-	ND (21)
Beryllium	mg/kg	140	0.74	-	0.6	-			0.54	-	0.39	0.58	-	0.25
Cadmium	mg/kg	78	ND (0.57)	-	ND (0.55)	-		-	0.72	-	ND (0.57)	ND (0.58)	-	ND (0.53)
Calcium	mg/kg	-	1020	-	2080	-	-		5780		6310	835	-	7110
Chromium	mg/kg	-	24.5	-	34.9	-	-		20.5	-	15.8	22.6	-	17.5
Cobalt	mg/kg	590	8.3	-	10.6		-		7.5	-	ND (5.7)	7.4	-	9.4
Copper	mg/kg	45000	20.3	-	61.1	-	-		26.5	-	18.3	13.5	-	48.2
Iron	mg/kg	-	21000	-	24300	-	-		21500	-	15700	24300	-	16200
Lead	mg/kg	800	10.5	-	75.2	-	-		46.5	-	10.1	10.7	-	2.7
Magnesium	mg/kg	-	4790	-	3550	-	-		3530	-	5120	3200	-	6750
Manganese	mg/kg	5900	213	-	189	-	-		270	-	146	236	-	200
Mercury	mg/kg	65	ND (0.038)	-	0.22	-	-	-	0.055	-	ND (0.036)	ND (0.038)	-	ND (0.036)
Nickel	mg/kg	23000	22.9	-	24.7	-	-	-	19.6	-	14.2	14.1	-	20.2
Potassium	mg/kg	-	2100	-	1460	-	-		1540	-	1150	ND (1200)	-	ND (1100)
Selenium	mg/kg	5700	ND (2.3)	-	ND (2.2)	-	-	-	ND (2.2)	-	ND (2.3)	ND (2.3)	-	ND (2.1)
Silver	mg/kg	5700	ND (0.57)	-	129	-	-	-	0.76	-	ND (0.57)	ND (0.58)	-	ND (0.53)
Sodium	mg/kg	-	ND (1100)	-	ND (1100)	-	-	-	ND (1100)	-	ND (1100)	ND (1200)	-	ND (1100)
Thallium	mg/kg	79	ND (1.1)	-	ND (1.1)	-	-	-	ND (1.1)	-	ND (1.1)	ND (1.2)	-	ND (1.1)
Vanadium	mg/kg	1100	24.2	-	33.4	-	-		26.1	-	18.2	57.2	-	30.5
Zinc	mg/kg	110000	49.1	-	164	-	-	-	140	-	36.3	59.4	-	23.1
General Chemistry														
Chromium, Hexavalent	mg/kg	-	-	ND (0.46)	-	ND (0.44)	-	-	-	ND (0.45)	-	-	0.58	-
Redox Potential Vs H2	mv	-	-	574	-	568	-		-	548	-	-	537	-
Solids, Percent	%	-	86.5	-	91.6	-	-		89.7	-	87.2	85.8	-	91.8
pH	su			4.62		7.92			-	8.31			6.42	

All results in mg/kg unless otherwise noted	١.
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vise noted.
milligrams per kilogram
Estimated Value
Not Sampled
Not Detected
Not Analyzed
Method Detection Limit
Compound Found in Blank
Health based standard defaults to soil saturation limit
Result is from 2nd run
Exceeds NJDEP Non-Residential Soil Remediation Standard mg/kg
J
NS
ND
NA
()
B
**
b
a

Table 4-1

Former Hess Port Reading Terminal (HC-PR) 750 Cliff Road, Port Reading, New Jersey

Summary of Soil Analytical Results - AOC-84 - Former Tank North of Administration Building

Client Sample ID:			PSRR-SS-1
		NJ Non-Residential	
Lab Sample ID:		Direct Contact Soil	JB98641-6
Date Sampled:			7/7/2015
Matrix:			Soil
Depth:			1.5-2.0 ft
GC/MS Volatiles (SW846 8260C)			
Acetone	mg/kg	NA	-
Benzene	mg/kg	5	
Bromochloromethane	mg/kg	-	-
Bromodichloromethane		3	
Bromoform	mg/kg mg/kg	280	-
Bromomethane		59	<u>-</u>
2-Butanone (MEK)	mg/kg	44000	-
Carbon disulfide	mg/kg		-
	mg/kg	110000	-
Carbon tetrachloride	mg/kg	2 7400	-
Chlorosthana	mg/kg		-
Chloroform	mg/kg	1100	-
Chloroform	mg/kg	2	-
Chloromethane	mg/kg	12	-
Cyclohexane	mg/kg	-	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	-
Dibromochloromethane	mg/kg	8	-
1,2-Dibromoethane	mg/kg	0.04	-
1,2-Dichlorobenzene	mg/kg	59000	-
1,3-Dichlorobenzene	mg/kg	59000	-
1,4-Dichlorobenzene	mg/kg	13	-
Dichlorodifluoromethane	mg/kg	230000	-
1,1-Dichloroethane	mg/kg	24	-
1,2-Dichloroethane	mg/kg	3	-
1,1-Dichloroethene	mg/kg	150	-
cis-1,2-Dichloroethene	mg/kg	560	-
trans-1,2-Dichloroethene	mg/kg	720	-
1,2-Dichloropropane	mg/kg	5	-
cis-1,3-Dichloropropene	mg/kg	7	-
trans-1,3-Dichloropropene	mg/kg	7	-
Ethylbenzene	mg/kg	110000	-
Freon 113	mg/kg	-	-
2-Hexanone	mg/kg	-	-
Isopropylbenzene	mg/kg	-	-
Methyl Acetate	mg/kg	NA	-
Methylcyclohexane	mg/kg	-	-
Methyl Tert Butyl Ether	mg/kg	320	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-	-
Methylene chloride	mg/kg	97	-
Styrene	mg/kg	260	-
1,1,2,2-Tetrachloroethane	mg/kg	3	-
Tetrachloroethene	mg/kg	5	-
Toluene	mg/kg	91000	-
1,2,3-Trichlorobenzene	mg/kg	-	
1,2,4-Trichlorobenzene	mg/kg	820	-
1,1,1-Trichloroethane	mg/kg	4200	-
1,1,2-Trichloroethane	mg/kg	6	-
Trichloroethene	mg/kg	20	-
Trichlorofluoromethane	mg/kg	340000	-
Vinyl chloride	mg/kg	2	-
m,p-Xylene	mg/kg	170000	-
o-Xylene	mg/kg	170000	-
Xylene (total)	mg/kg	170000	-
	mg/ng	170000	-

Former Hess Port Reading Terminal (HC-PR)

750 Cliff Road, Port Reading, New Jersey

Summary of Soil Analytical Results - AOC-84 - Former Tank North of Administration Building

Client Sample ID:		NJ Non-Residential	PSRR-SS-1
Lab Sample ID:		Direct Contact Soil	JB98641-6
Date Sampled:		Direct Contact Son	7/7/2015
Matrix:			Soil
Depth:			1.5-2.0 ft
GC/MS Volatile TIC			
	1		
Total TIC, Volatile	mg/kg	-	-
Total TIC, Volatile	mg/kg	-	-
Total Alkanes	mg/kg	-	-
Total Alkanes	mg/kg	-	-
GC/MS Semi-volatiles (SW846 8270D)			
Acenaphthene	mg/kg	37000	ND (0.0076)
Acenaphthylene	mg/kg	300000	ND (0.0057)
2-Chlorophenol	mg/kg	2200	-
Anthracene	mg/kg	30000	ND (0.0085)
Benzo(a)anthracene	mg/kg	2	ND (0.0073)
4-Chloro-3-methyl phenol	mg/kg	-	-
Benzo(a)pyrene	mg/kg	0.2	ND (0.0091)
2,4-Dichlorophenol	mg/kg	2100	-
Benzo(b)fluoranthene	mg/kg	2	ND (0.0074)
2,4-Dimethylphenol	mg/kg	14000	-
2,4-Dinitrophenol	mg/kg	1400	-
Benzo(g,h,i)perylene	mg/kg	30000	ND (0.012)
Benzo(k)fluoranthene	mg/kg	23	ND (0.012)
4,6-Dinitro-o-cresol	mg/kg	68	-
Chrysene	mg/kg	230	ND (0.0093)
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.0091)
Fluoranthene	mg/kg	24000	0.0164 J
2-Methylphenol	mg/kg	3400	-
3&4-Methylphenol	mg/kg	-	-
Fluorene	mg/kg	24000	ND (0.029)
Indeno(1,2,3-cd)pyrene	mg/kg	2	ND (0.012)
2-Nitrophenol	mg/kg	-	-
Naphthalene	mg/kg	17	ND (0.0056)
4-Nitrophenol	mg/kg	-	-
Pentachlorophenol	mg/kg	10	-
Phenanthrene	mg/kg	300000	ND (0.0080)
Pyrene	mg/kg	18000	ND (0.0085)
GC Semi-volatiles (NJDEP EPH)			
EPH (C9-C28)	mg/kg	-	ND (4.8)
EPH (>C28-C40)	mg/kg	-	ND (4.8)
Total EPH (C9-C40)	mg/kg	-	ND (4.8)
GC Semi-volatiles (SW846 8082A)			
Aroclor 1016	mg/kg	1	ND (0.011)
Aroclor 1221	mg/kg	1	ND (0.020)
Aroclor 1232	mg/kg	1	ND (0.011)
Aroclor 1242	mg/kg	1	ND (0.016)
Aroclor 1248	mg/kg	1	ND (0.011)
Aroclor 1254	mg/kg	1	ND (0.015)
Aroclor 1260	mg/kg	1	ND (0.015)
Aroclor 1268	mg/kg	1	ND (0.011)
Aroclor 1262	mg/kg	1	ND (0.0097)

Former Hess Port Reading Terminal (HC-PR)

750 Cliff Road, Port Reading, New Jersey

Summary of Soil Analytical Results - AOC-84 - Former Tank North of Administration Building

Client Sample ID:		NIN Paridadial	PSRR-SS-1
Lab Sample ID:		NJ Non-Residential Direct Contact Soil	JB98641-6
Date Sampled:		2	7/7/2015
Matrix:			Soil
Depth:			1.5-2.0 ft
Metals Analysis			
Aluminum	mg/kg	NA	8570
Antimony	mg/kg	450	<2.2
Arsenic	mg/kg	19	4
Barium	mg/kg	59000	69.9
Beryllium	mg/kg	140	0.66
Cadmium	mg/kg	78	<0.55
Calcium	mg/kg	-	2630
Chromium	mg/kg	-	17.2
Chromium, Hexavalent	mg/kg	-	-
Cobalt	mg/kg	590	8.2
Copper	mg/kg	45000	24.1
Iron	mg/kg	-	19600
Lead	mg/kg	800	21.5
Magnesium	mg/kg	-	3740
Manganese	mg/kg	5900	537
Mercury	mg/kg	65	<0.036
Nickel	mg/kg	23000	18.8
Potassium	mg/kg	-	1540
Selenium	mg/kg	5700	<2.2
Silver	mg/kg	5700	0.97
Sodium	mg/kg	-	<1100
Sulfur	mg/kg	-	-
Thallium	mg/kg	79	<1.1
Vanadium	mg/kg	1100	23.1
Zinc	mg/kg	110000	57.7
General Chemistry			
Solids, Percent	%	-	88.3

All results in mg/kg unless otherwise noted.	
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
а	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Hess Corporation - Former Port Reading Complex (HC-PR) 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results - AOC-85 - Marine Vapor Recovery Unit (VRU) - TK-4701 and TK -4801

Client Sample ID:		NJ Non- Residential Direct Contact	MVRU-SS-1 (0.5-1.0)	MVRU-SS-2 (0.5-1.0)	MVRU-SS-3 (13.0-13.5)	MVRU-SS-4 (8.5-9.0)	MVRU-SS-5 (9.0-9.5)	MVRU-SS-5 (0.5-1.0)	MVRU-SS-6 (7.5-8.0)
Lab Sample ID: Date Sampled:		Soil (NJAC 7: 26D 6/08)	JB75199-1/1A 8/27/2014	JB75199-2/2A 8/27/2014	JB75199-3/3A 8/27/2014	JB75005-1/1R 8/26/2014	JB75005-2/2R 8/26/2014	JB75005-3 8/26/2014	JB75199-4/4A 8/27/2014
Matrix:		,	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds									
Acetone	mg/kg		0.0066 J	ND (0.0054)	0.0097 J	0.0566	0.13	I -	ND (0.17)
Benzene	mg/kg	5	ND (0.00017)	ND (0.0034)	0.0003 J	0.00030 J	ND (0.00018)	-	ND (0.012)
Bromochloromethane	mg/kg	-	ND (0.00027)	ND (0.00060)	ND (0.00030)	ND (0.00033)	ND (0.00029)	-	ND (0.019)
Bromodichloromethane	mg/kg	3	ND (0.00020)	ND (0.00044)	ND (0.00022)	ND (0.00024)	ND (0.00021)	-	ND (0.014)
Bromoform Bromomethane	mg/kg mg/kg	280 59	ND (0.00017) ND (0.00028)	ND (0.00039) ND (0.00063)	ND (0.00019) ND (0.00032)	ND (0.00021) ND (0.00034)	ND (0.00019) ND (0.00030)	-	ND (0.012) ND (0.020)
2-Butanone (MEK)	mg/kg	44,000	ND (0.0018)	ND (0.0041)	ND (0.0020)	0.0097 J	0.0235	-	ND (0.13)
Carbon disulfide	mg/kg	110,000	0.00059 J	0.0034 J	0.0023	0.00077 J	0.0028	-	ND (0.020)
Carbon tetrachloride	mg/kg	2	ND (0.00014)	ND (0.00031)	ND (0.00016)	ND (0.00017)	ND (0.00015)	-	ND (0.0096)
Chlorobenzene Chloroethane	mg/kg mg/kg	7,400 1,100	ND (0.00013) ND (0.00027)	ND (0.00030) ND (0.00062)	0.00046 J ND (0.00031)	ND (0.00016) ND (0.00034)	ND (0.00014) ND (0.00030)	-	ND (0.0094) ND (0.019)
Chloroform	mg/kg	2	ND (0.00027)	ND (0.0002)	ND (0.00031)	ND (0.00034)	ND (0.00030)	-	ND (0.0091)
Chloromethane	mg/kg	12	ND (0.00029)	ND (0.00066)	ND (0.00033)	ND (0.00036)	ND (0.00032)	-	ND (0.021)
Cyclohexane	mg/kg	-	ND (0.00034)	ND (0.00077)	0.00049 J	ND (0.00042)	ND (0.00037)	-	0.0516 J
1,2-Dibromo-3-chloropropane Dibromochloromethane	mg/kg mg/kg	0.2 8	ND (0.00038) ND (0.00017)	ND (0.00085) ND (0.00038)	ND (0.00043) ND (0.00019)	ND (0.00046) ND (0.00021)	ND (0.00041) ND (0.00018)	-	ND (0.026) ND (0.012)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00017)	ND (0.00030)	ND (0.00019)	ND (0.00021)	ND (0.00019)	-	ND (0.012)
1,2-Dichlorobenzene	mg/kg	59,000	ND (0.00018)	ND (0.00041)	ND (0.00021)	ND (0.00022)	ND (0.00020)	_	ND (0.013)
1,3-Dichlorobenzene	mg/kg	59,000	ND (0.00019)	ND (0.00042)	ND (0.00021)	ND (0.00023)	ND (0.00020)	-	ND (0.013)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00016)	ND (0.00036)	ND (0.00018)	ND (0.00020)	ND (0.00017)	-	ND (0.011)
Dichlorodifluoromethane 1,1-Dichloroethane	mg/kg mg/kg	230,000 24	ND (0.00050) ND (0.00018)	ND (0.0011) ND (0.00040)	ND (0.00057) ND (0.00020)	ND (0.00062) ND (0.00022)	ND (0.00054) ND (0.00019)	-	ND (0.035) ND (0.013)
1,2-Dichloroethane	mg/kg	3	ND (0.00016)	ND (0.00040)	ND (0.00020)	ND (0.00022)	ND (0.00019)	-	ND (0.013)
1,1-Dichloroethene	mg/kg	150	ND (0.00026)	ND (0.00060)	ND (0.00030)	ND (0.00033)	ND (0.00029)	-	ND (0.019)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00025)	ND (0.00056)	ND (0.00028)	ND (0.00031)	ND (0.00027)	-	ND (0.018)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00018)	ND (0.00041)	ND (0.00021)	ND (0.00022)	ND (0.00020)	-	ND (0.013)
1,2-Dichloropropane cis-1,3-Dichloropropene	mg/kg	5 7	ND (0.00016) ND (0.00012)	ND (0.00037) ND (0.00028)	ND (0.00019) ND (0.00014)	ND (0.00020) ND (0.00015)	ND (0.00018) ND (0.00013)	-	ND (0.012) ND (0.0086)
trans-1,3-Dichloropropene	mg/kg mg/kg	7	ND (0.00012)	ND (0.00028)	ND (0.00014)	ND (0.00013)	ND (0.00013)	-	ND (0.0086)
Ethylbenzene	mg/kg	110,000	ND (0.00019)	ND (0.00042)	0.0019	ND (0.00023)	ND (0.00020)	_	0.0347 J
Freon 113	mg/kg	-	ND (0.00052)	ND (0.0012)	ND (0.00059)	ND (0.00064)	ND (0.00057)	-	ND (0.037)
2-Hexanone	mg/kg	-	ND (0.0015)	ND (0.0035)	ND (0.0017)	ND (0.0019)	ND (0.0017)	-	ND (0.11)
Isopropylbenzene	mg/kg	-	ND (0.00018)	ND (0.00040)	0.011	0.00036 J	ND (0.00019)	-	2.02
Methyl Acetate	mg/kg	-	ND (0.0011)	ND (0.0024)	ND (0.0012)	ND (0.0013)	ND (0.0011)	-	ND (0.075)
Volatile Organic Compounds (continue	d)							
Methylcyclohexane	mg/kg	_	ND (0.00021)	ND (0.00047)	0.0054	ND (0.00026)	ND (0.00023)	I -	1.15
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00016)	ND (0.00036)	ND (0.00018)	ND (0.00020)	ND (0.00017)	-	ND (0.011)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00051)	ND (0.0012)	ND (0.00058)	ND (0.00063)	ND (0.00056)	-	ND (0.036)
Methylene chloride	mg/kg	97	ND (0.0014)	ND (0.0032)	ND (0.0016)	ND (0.0018)	0.0019 J	-	ND (0.10)
Styrene 1,1,2,2-Tetrachloroethane	mg/kg mg/kg	260 3	ND (0.00017) ND (0.00021)	ND (0.00039) ND (0.00047)	ND (0.00020) ND (0.00024)	ND (0.00021) ND (0.00026)	ND (0.00019) ND (0.00023)	-	ND (0.012) ND (0.015)
Tetrachloroethene	mg/kg	5	ND (0.00021)	ND (0.00047)	ND (0.00024)	ND (0.00020)	ND (0.00023)	-	ND (0.013)
Toluene	mg/kg	91,000	ND (0.00022)	ND (0.00050)	ND (0.00025)	ND (0.00027)	ND (0.00024)	-	ND (0.016)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00020)	ND (0.00044)	ND (0.00022)	ND (0.00024)	ND (0.00021)	-	ND (0.014)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00017)	ND (0.00039)	ND (0.00020)	ND (0.00021)	ND (0.00019)	-	ND (0.012)
1,1,1-Trichloroethane 1,1,2-Trichloroethane	mg/kg mg/kg	4,200 6	ND (0.00013) ND (0.00021)	ND (0.00030) ND (0.00048)	ND (0.00015) ND (0.00024)	ND (0.00017) ND (0.00026)	ND (0.00015) ND (0.00023)	-	ND (0.0095) ND (0.015)
Trichloroethene	mg/kg	20	ND (0.00021)	ND (0.00048)	ND (0.00024)	ND (0.00024)	ND (0.00023)	-	ND (0.013)
Trichlorofluoromethane	mg/kg	340,000	ND (0.00016)	ND (0.00037)	ND (0.00019)	ND (0.00020)	ND (0.00018)	-	ND (0.012)
Vinyl chloride	mg/kg	2	ND (0.00036)	ND (0.00081)	ND (0.00041)	ND (0.00044)	ND (0.00039)	-	ND (0.025)
m,p-Xylene	mg/kg	170,000	ND (0.00039)	ND (0.00089)	0.0063	ND (0.00048)	ND (0.00043)	-	0.0573 J
Methylcyclohexane Methyl Tert Butyl Ether	mg/kg mg/kg	320	ND (0.00021) ND (0.00016)	ND (0.00047) ND (0.00036)	0.0054 ND (0.00018)	ND (0.00026) ND (0.00020)	ND (0.00023) ND (0.00017)	-	1.15 ND (0.011)
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00010)	ND (0.00030)	ND (0.00018)	ND (0.00020)	ND (0.00017)	-	ND (0.011)
Methylene chloride	mg/kg	97	ND (0.0014)	ND (0.0032)	ND (0.0016)	ND (0.0018)	0.0019 J		ND (0.10)
Styrene	mg/kg	260	ND (0.00017)	ND (0.00039)	ND (0.00020)	ND (0.00021)	ND (0.00019)	-	ND (0.012)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00021)	ND (0.00047)	ND (0.00024)	ND (0.00026)	ND (0.00023)	-	ND (0.015)
Tetrachloroethene Toluene	mg/kg mg/kg	5 91,000	ND (0.00017) ND (0.00022)	ND (0.00038) ND (0.00050)	ND (0.00019) ND (0.00025)	ND (0.00021) ND (0.00027)	ND (0.00018) ND (0.00024)	-	ND (0.012) ND (0.016)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00022)	ND (0.00030)	ND (0.00023)	ND (0.00027)	ND (0.00024)	-	ND (0.016)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00017)	ND (0.00039)	ND (0.00020)	ND (0.00021)	ND (0.00019)	-	ND (0.012)
1,1,1-Trichloroethane	mg/kg	4,200	ND (0.00013)	ND (0.00030)	ND (0.00015)	ND (0.00017)	ND (0.00015)	-	ND (0.0095)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00021)	ND (0.00048)	ND (0.00024)	ND (0.00026)	ND (0.00023)	-	ND (0.015)
Trichloroethene Trichlorofluoromethane	mg/kg mg/kg	20 340,000	ND (0.00019) ND (0.00016)	ND (0.00043) ND (0.00037)	ND (0.00022) ND (0.00019)	ND (0.00024) ND (0.00020)	ND (0.00021) ND (0.00018)	-	ND (0.014) ND (0.012)
Vinyl chloride	mg/kg	2	ND (0.00016)	ND (0.00037)	ND (0.00019)	ND (0.00020)	ND (0.00018)	-	ND (0.012)
m,p-Xylene	mg/kg	170,000	ND (0.00039)	ND (0.00089)	0.0063	ND (0.00048)	ND (0.00043)	-	0.0573 J
o-Xylene	mg/kg	170,000	ND (0.00021)	ND (0.00047)	0.0024	ND (0.00025)	ND (0.00022)	-	ND (0.015)
Xylene (total)	mg/kg	170,000	ND (0.00021)	ND (0.00047)	0.0088	0.00039 J	ND (0.00022)	-	0.0573 J
Total TIC, Volatile Total Alkanes	mg/kg	-	0	0	4.004 J (15) 0	0.2041 J (15) 0	0.1213 J (13) 0	-	89.7 J (10)
TOTAL AIKAITES	mg/kg	-	U	U	L 0	U	U	-	71.1 J

Hess Corporation - Former Port Reading Complex (HC-PR)
750 Cliff Road, Port Reading, New Jersey

Summary of Soil Analytical Results - AOC-85 - Marine Vapor Recovery Unit (VRU) - TK-4701 and TK -4801

Deb Sample Deb	Client Sample ID:		NJ Non- Residential Direct Contact	MVRU-SS-1 (0.5-1.0)	MVRU-SS-2 (0.5-1.0)	MVRU-SS-3 (13.0-13.5)	MVRU-SS-4 (8.5-9.0)	MVRU-SS-5 (9.0-9.5)	MVRU-SS-5 (0.5-1.0)	MVRU-SS-6 (7.5-8.0)
Date Sampled: 260 409 \$2772914 \$277	Lab Sample ID:			JB75199-1/1A	JB75199-2/2A	JB75199-3/3A	JB75005-1/1R	JB75005-2/2R	JB75005-3	JB75199-4/4A
Seminorial Components										8/27/2014
C-Direct-Intelly James	Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil
C-Direct-Intelly James										
ADDITION Common	Semi-Volatile Organic Compou	ınds								
ADDITION Common	2-Chlorophenol	ma/ka	2 200				ND (0.039)	ND (0.040)	_	_
2.4.Dimetrophenol mg/sq								(/		
2.4.Dmirphychemol mykg 14,000										-
46-Definy-o-creed mg/kg 3,400 ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046) ND (0.046)			14,000	-	-	-	ND (0.066)	ND (0.067)	-	-
Zebertyperbened mg/kg mg	2,4-Dinitrophenol	mg/kg		-	-	-		ND (0.049)	-	-
SAA-Meriphered mg/kg				-	-	-			-	-
2-Net openhand mg/kg . . No (0.042) No (0.048) .				-	-	-			-	-
Abertophenor										
Pertachidrophenel mg/kg 10			-							
Piened mg/kg 210,000			- 10							
2.3.4.6 Trickinospherol mg/kg 68,000 - ND (0.040) ND (0.041) - 2.4.6 Trickinospherol mg/kg 68,000 - ND (0.046) ND (0.047) - 2.4.6 Trickinospherol mg/kg 37,000 - ND (0.037) ND (0.038) - 2.4.6 Trickinospherol mg/kg 37,000 - ND (0.037) ND (0.038) - 2.4.6 Trickinospherol mg/kg 37,000 - ND (0.037) ND (0.037) ND (0.038) - 2.4.6 Trickinospherol mg/kg 37,000 - ND (0.037) ND (0.0					-	-				
24.6 Trickinosphered mg/kg			-	-	_	-			-	-
24.6 Trichforoptened mg/kg 37,000			68,000	-	-					-
Acenghithmen				-	-	-				-
Acetophenone	Acenaphthene	mg/kg		-	-	-			-	-
Anthraicene mg/kg 3,0000		mg/kg								
Arazine										
Benzo(a)pyrene mg/kg 2										
Benzolg/pyrene										
Benzo(gh/Jupranthene mg/kg 20										
Benzo(ght)perylene				-						-
Benzo(Influoranthene									_	_
				-					-	-
Butyl benzyl prithilate										_
Berzalderyde			14,000	-	-	-			-	-
Chromaphthalene	1,1'-Biphenyl	mg/kg	34,000	-	-	-	ND (0.0046)	ND (0.0047)	-	-
4-Chioropaniline mg/kg 96	Benzaldehyde	mg/kg	68,000	-	-	-	ND (0.0090)	ND (0.0092)	-	-
Carbazole			-	-						-
Caprolactarm			-	-	-	-			-	-
Chrysene				-	-	-			-	-
bis/2-Chloroethoxylmethane mg/kg - - - ND (0.016) ND (0.016) - -										
bis/2-Chlorospropyleher mg/kg 2										
bis(2-Chloroisopropy)lether mg/kg 67										
4-Chilorophenyl plenyl ether				-						-
2.4-Dinitrotoluene mg/kg 3			-	-	-	-			_	_
Semi-Volatile Organic Compounds (continued) Semi-Volatile Organic Compounds (continued)			3	-	-	-			-	-
3.3-Dichlorobenzidine	2,6-Dinitrotoluene		3	-	-	-	ND (0.015)	ND (0.015)	-	-
3,3-Dichlorobenzidine mg/kg 4										
1,4-Dioxane	Semi-Volatile Organic Compou	ınds (con	itinued)							
1,4-Dioxane							115 (0.010)	ND (0.010)	1	
Dibenzo(a,h)anthracene mg/kg 0.2			4	-	-					-
Dib-notyly phthalate mg/kg 68,000 - - ND (0.012) ND (0.012) - - Di-notyly phthalate mg/kg 27,000 - - ND (0.0087) ND (0.020) - - Diethyl phthalate mg/kg 27,000 - - ND (0.019) ND (0.020) - - Diethyl phthalate mg/kg 550,000 - - ND (0.013) ND (0.014) - Dimethyl phthalate mg/kg - - - ND (0.013) ND (0.014) - Dimethyl phthalate mg/kg 140 - - ND (0.035) 0.432 - -			0.2	-	-					-
Di-n-buty phthalate mg/kg 27,000 - - ND (0.0087) 0.118 - -			0.2							
Di-noctyl phthalate mg/kg 27,000 - - ND (0.019) ND (0.020) - -			68,000							-
Diethyl phthalate				-	-					-
Dimethyl phthalate				-	-					-
Fluoranthene mg/kg 24,000 - - 0.43 0.102 - -	Dimethyl phthalate		-		-		ND (0.014)			
Fluorene										
Hexachlorobenzene mg/kg 1										-
Hexachlorobutadiene mg/kg 25 - - ND (0.011) ND (0.011) - - Hexachlorocyclopentadiene mg/kg 110 - - ND (0.040) ND (0.041) - - Hexachlorotehane mg/kg 140 - - ND (0.011) ND (0.011) - - Indeno(1,2,3-cd)pyrene mg/kg 2 - - 0.626 0.0455 - Isophorone mg/kg 2,000 - - ND (0.011) ND (0.011) - - Seymetrone mg/kg 2,000 - - ND (0.022) ND (0.022) - - Seymetrone mg/kg 2,400 - - ND (0.022) ND (0.022) - - Seymetrone mg/kg 2,400 - - ND (0.021) ND (0.011) - Seymetrone mg/kg 2,400 - - ND (0.022) ND (0.022) - - Seymetrone mg/kg 2,400 - - ND (0.011) ND (0.016) - Seymetrone mg/kg 2,400 - - ND (0.017) ND (0.018) - Seymetrone mg/kg 2,400 - - ND (0.017) ND (0.018) - Seymetrone mg/kg 2,400 - - ND (0.015) ND (0.016) - Seymetrone mg/kg - - - ND (0.015) ND (0.016) - Seymetrone mg/kg - - ND (0.015) ND (0.016) - Seymetrone mg/kg 17 - - ND (0.011) ND (0.012) - Seymetrone mg/kg 340 - - ND (0.011) ND (0.012) - Seymetrone mg/kg 340 - - ND (0.0011) ND (0.012) - Seymetrone mg/kg 300 - - ND (0.0030) ND (0.0098) - Seymetrone mg/kg 300 - - ND (0.023) ND (0.024) - Seymetrone mg/kg 300 - - ND (0.017) ND (0.018) -										-
Hexachlorocyclopentadiene mg/kg 110 - - ND (0.040) ND (0.041) - -				-						-
Hexachloroethane				-	-	-			-	-
Indeno(1,2,3-cd)pyrene mg/kg 2				-	-	-			-	-
Sophorone mg/kg 2,000 - - ND (0.011) ND (0.011) - -										
2-Methylnaphthalene mg/kg 2.400 - - ND (0.022) ND (0.022) - - 2-Nitroaniline mg/kg - - - ND (0.017) ND (0.018) - - 3-Nitroaniline mg/kg - - - ND (0.016) ND (0.016) - - 4-Nitroaniline mg/kg - - - ND (0.015) ND (0.016) - - Naphthalene mg/kg 17 - - ND (0.011) 0.044 - - N-Nitrobezeine mg/kg 340 - - ND (0.011) ND (0.012) - - N-Nitroso-di-n-propylamine mg/kg 0.3 - - ND (0.098) ND (0.098) - - N-Nitrosodiphenylamine mg/kg 390 - - ND (0.023) ND (0.024) - - Phenanthrene mg/kg 300,000 - - 0.107 ND (0.018) - -				-	-	-			-	-
2-Nitroaniline mg/kg 23,000 - - ND (0.017) ND (0.018) - - ND (0.017) ND (0.018) - - ND (0.018) - -				_	-	-			-	-
3-Nitroaniline mg/kg - - - ND (0.016) ND (0.016) - - -										-
4-Nitroso-dil-n-propylamine mg/kg - - - ND (0.015) ND (0.016) - - Naphthalene mg/kg 17 - - - ND (0.011) 0.044 - - N-Nitrose-di-n-propylamine mg/kg 340 - - - ND (0.011) ND (0.012) - - N-Nitroso-di-n-propylamine mg/kg 0.3 - - - ND (0.098) ND (0.098) - - N-Nitroso-diphenylamine mg/kg 390 - - - ND (0.023) ND (0.024) - - Phenanthrene mg/kg 300,000 - - - 0.107 ND (0.018) - -			-	-	-	-	ND (0.016)	ND (0.016)		-
Nitrobenzene mg/kg 340 - - ND (0.011) ND (0.012) - - NN-Nitroso-di-n-propylamine mg/kg 0.3 - - ND (0.098) ND (0.098) - - ND (0.098) ND (0.098) - - ND (0.023) ND (0.024) - - ND (0.023) ND (0.024) - - - ND (0.023) ND (0.024) - - - - ND (0.023) ND (0.024) - - - - - - - - -		mg/kg					ND (0.015)	ND (0.016)		-
N-Nitroso-di-n-propylamine mg/kg 0.3 ND (0.0096) ND (0.0098) N-Nitrosodiphenylamine mg/kg 390 ND (0.023) ND (0.024) ND (0.0098) ND (0.0098)				-	-	-				-
N-Nitrosodiphenylamine mg/kg 390 ND (0.023) ND (0.024) Phenanthrene mg/kg 300,000 0.107 ND (0.018)				-	·	·				-
Phenanthrene mg/kg 300,000 0.107 ND (0.018)										
			18,000	-	-	-	7.09	ND (0.018) 0.841	-	-
Fyrene mg/kg 18,000 7.09 0.841 7.09 0.841 ND (0.012) ND (0.012) ND (0.012) ND (0.012) ND (0.012) ND (0.012) ND (0.012) - - -	Pyrene 1 2 4 5 Tetrachlorobenzene	mg/kg								

Hess Corporation - Former Port Reading Complex (HC-PR) 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results - AOC-85 - Marine Vapor Recovery Unit (VRU) - TK-4701 and TK -4801

Client Sample ID:		NJ Non- Residential Direct Contact	MVRU-SS-1 (0.5-1.0)	MVRU-SS-2 (0.5-1.0)	MVRU-SS-3 (13.0-13.5)	MVRU-SS-4 (8.5-9.0)	MVRU-SS-5 (9.0-9.5)	MVRU-SS-5 (0.5-1.0)	MVRU-SS-6 (7.5-8.0)
Lab Sample ID:		Soil (NJAC 7:	JB75199-1/1A	JB75199-2/2A	JB75199-3/3A	JB75005-1/1R	JB75005-2/2R	JB75005-3	JB75199-4/4A
Date Sampled:		26D 6/08)	8/27/2014	8/27/2014	8/27/2014	8/26/2014	8/26/2014	8/26/2014	8/27/2014
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil
Semi-Volatile Organic Tenta	tively Identi	fied Compounds							
Total TIC, Semi-Volatile	mg/kg	-	-	-	-	49.2 J (24)	15.49 J (23)	-	-
Total Alkanes	mg/kg	-	-	-	-	0	0	-	-
New Jersey Department of I	Environment	al Protection Ext	tractable Petroleun	n Hydrocarbons					
EPH (C9-C28)	mg/kg	-	22.4	21	221	2,070	286	ND (3.5)	129
	mg/kg	-	21.1	ND (3.0)	17.7	942	119	ND (4.3)	ND (3.0)
EPH (>C28-C40)	ilig/kg								
EPH (>C28-C40) Total EPH (C9-C40)	mg/kg	54,000***	43.5	21	239	3,010	405	ND (3.5)	129
		54,000***	43.5	21	239	3,010	405	ND (3.5)	129
		54,000***	43.5	21	239	3,010	405	ND (3.5)	129

All results in mg/kg unless of	otherwise noted.
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
а	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC-87 – Flare Knock Out Drum

Client Sample ID:		NJ Non- Residential	FKD-SS-1	FKD-SS-1	FKD-SS-2
Lab Sample ID:			JC3371-1	JC3371-1R	JC3371-2
Date Sampled:		Direct Contact	9/8/2015	9/8/2015	9/8/2015
Matrix:		Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	2.5-3.0 ft
GC/MS Volatiles (SW846 82600	:)				
Acetone	mg/kg	NA	-	0.0098	-
Benzene	mg/kg	5	-	ND (0.00041)	-
Bromochloromethane	mg/kg	3	-	ND (0.0041)	-
Bromodichloromethane	mg/kg	280	-	ND (0.0017)	-
Bromoform Bromomethane	mg/kg	59		ND (0.0041) ND (0.0041)	
	mg/kg	44000	-		-
2-Butanone (MEK) Carbon disulfide	mg/kg mg/kg	110000	-	ND (0.0083) ND (0.0017)	-
Carbon tetrachloride	mg/kg	2	-	ND (0.0017)	-
Chlorobenzene	mg/kg	7400	-	ND (0.0017)	-
Chloroethane	mg/kg	1100		ND (0.0017)	
Chloroform	mg/kg	2	-	ND (0.0041)	-
Chloromethane	mg/kg	12	-	ND (0.0017)	-
Cyclohexane	mg/kg	-	-	ND (0.0041)	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	_	ND (0.0017)	_
Dibromochloromethane	mg/kg	8	_	ND (0.0017)	_
1,2-Dibromoethane	mg/kg	0.04	_	ND (0.00083)	_
1,2-Dichlorobenzene	mg/kg	59000	_	ND (0.00083)	-
1,3-Dichlorobenzene	mg/kg	59000	_	ND (0.00083)	-
1,4-Dichlorobenzene	mg/kg	13	-	ND (0.00083)	-
Dichlorodifluoromethane	mg/kg	230000	-	ND (0.0041)	-
1,1-Dichloroethane	mg/kg	24	-	ND (0.00083)	-
1,2-Dichloroethane	mg/kg	3	-	ND (0.00083)	-
1,1-Dichloroethene	mg/kg	150	-	ND (0.00083)	-
cis-1,2-Dichloroethene	mg/kg	560	-	ND (0.00083)	-
trans-1,2-Dichloroethene	mg/kg	720	-	ND (0.00083)	-
1,2-Dichloropropane	mg/kg	5	•	ND (0.0017)	-
cis-1,3-Dichloropropene	mg/kg	7	-	ND (0.0017)	-
trans-1,3-Dichloropropene	mg/kg	7	-	ND (0.0017)	-
Ethylbenzene	mg/kg	110000	-	ND (0.00083)	-
Freon 113	mg/kg	-	-	ND (0.0041)	-
2-Hexanone	mg/kg	-	-	ND (0.0041)	-
Isopropylbenzene	mg/kg	-	-	ND (0.0017)	-
Methyl Acetate	mg/kg	NA	-	ND (0.0041)	-
Methylcyclohexane	mg/kg	-	-	ND (0.0017)	-
Methyl Tert Butyl Ether	mg/kg	320		ND (0.00083)	-
4-Methyl-2-pentanone(MIBK) Methylene chloride	mg/kg	- 97	-	ND (0.0041)	-
Styrene	mg/kg mg/kg	260	-	ND (0.0041) ND (0.0017)	-
1,1,2,2-Tetrachloroethane	mg/kg	3	-	ND (0.0017)	-
Tetrachloroethene	mg/kg	5	-	ND (0.0017)	-
Toluene	mg/kg	91000	-	ND (0.0017)	-
1,2,3-Trichlorobenzene	mg/kg	-		ND (0.00083)	-
1,2,4-Trichlorobenzene	mg/kg	820	-	ND (0.0041)	-
1,1,1-Trichloroethane	mg/kg	4200	-	ND (0.0041)	-
1.1.2-Trichloroethane	mg/kg	6	-	ND (0.0017)	-
Trichloroethene	mg/kg	20	-	ND (0.00083)	-
Trichlorofluoromethane	mg/kg	340000	-	ND (0.0041)	-
Vinyl chloride	mg/kg	2	-	ND (0.0017)	-
m,p-Xylene	mg/kg	170000	-	0.00056 J	-
o-Xylene	mg/kg	170000	-	ND (0.00083)	-
Xylene (total)	mg/kg	170000	-	0.00078 J	-
, ,					
GC/MS Volatile TIC					
T. (TO) (1 0				
Total TIC, Volatile	mg/kg	-	-	0	-
Total Alkanes	mg/kg	•	-	0	-

Client Sample ID:		NJ Non- Residential	FKD-SS-1	FKD-SS-1	FKD-SS-2
Lab Sample ID:		Direct Contact	JC3371-1	JC3371-1R	JC3371-2
Date Sampled: Matrix:		Soil	9/8/2015 Soil	9/8/2015 Soil	9/8/2015 Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	2.5-3.0 ft
GC/MS Semi-volatiles (SW846	8270D)				
2-Chlorophenol	mg/kg	2200	-	ND (0.072)	-
4-Chloro-3-methyl phenol	mg/kg	-	-	ND (0.18)	-
2,4-Dichlorophenol 2,4-Dimethylphenol	mg/kg mg/kg	2100 14000	-	ND (0.18) ND (0.18)	-
2,4-Dinitrophenol	mg/kg	1400		ND (0.18)	-
4,6-Dinitro-o-cresol	mg/kg	68	-	ND (0.18)	-
2-Methylphenol 3&4-Methylphenol	mg/kg mg/kg	3400	-	ND (0.072) ND (0.072)	
2-Nitrophenol	mg/kg	-		ND (0.18)	
1-Nitrophenol	mg/kg	-	-	ND (0.36)	-
Pentachlorophenol	mg/kg	10	-	ND (0.18)	-
Phenol 2,3,4,6-Tetrachlorophenol	mg/kg mg/kg	210000	-	ND (0.072) ND (0.18)	-
2,4,5-Trichlorophenol	mg/kg	68000	-	ND (0.18)	-
2,4,6-Trichlorophenol	mg/kg	74	-	ND (0.18)	-
Acenaphthene	mg/kg	37000 300000	-	ND (0.036)	-
Acenaphthylene Acetophenone	mg/kg mg/kg	5	-	ND (0.036) ND (0.18)	-
Anthracene	mg/kg	30000	-	0.0294 J	-
Atrazine	mg/kg	2400	-	ND (0.072)	-
Benzo(a)anthracene Benzo(a)pyrene	mg/kg	0.2	-	0.0604 0.0789	-
Benzo(a)pyrene Benzo(b)fluoranthene	mg/kg mg/kg	2	<u> </u>	0.0789	
Benzo(g,h,i)perylene	mg/kg	30000	-	0.0739	-
Benzo(k)fluoranthene	mg/kg	23	-	0.0327 J	-
4-Bromophenyl phenyl ether Butyl benzyl phthalate	mg/kg	14000	-	ND (0.072)	<u> </u>
1,1'-Biphenyl	mg/kg mg/kg	34000	<u> </u>	ND (0.072) ND (0.072)	
Benzaldehyde	mg/kg	68000	-	ND (0.18)	-
2-Chloronaphthalene	mg/kg	-	-	ND (0.072)	-
4-Chloroaniline Carbazole	mg/kg mg/kg	- 96	-	ND (0.18) ND (0.072)	-
Caprolactam	mg/kg	340000	-	ND (0.072)	
Chrysene	mg/kg	230	-	0.102	-
ois(2-Chloroethoxy)methane	mg/kg	- 2	-	ND (0.072)	-
bis(2-Chloroethyl)ether bis(2-Chloroisopropyl)ether	mg/kg mg/kg	67	<u> </u>	ND (0.072) ND (0.072)	
4-Chlorophenyl phenyl ether	mg/kg	-	-	ND (0.072)	-
2,4-Dinitrotoluene	mg/kg	3	-	ND (0.036)	-
2,6-Dinitrotoluene	mg/kg	3	-	ND (0.036)	
3,3'-Dichlorobenzidine 1,4-Dioxane	mg/kg mg/kg	-	<u> </u>	ND (0.072) ND (0.036)	
Dibenzo(a,h)anthracene	mg/kg	0.2	-	0.0207 J	-
Dibenzofuran	mg/kg	-	-	ND (0.072)	-
Di-n-butyl phthalate Di-n-octyl phthalate	mg/kg mg/kg	68000 27000	-	ND (0.072) ND (0.072)	-
Diethyl phthalate	mg/kg	550000	-	ND (0.072) ND (0.072)	-
Dimethyl phthalate	mg/kg	-	-	ND (0.072)	-
pis(2-Ethylhexyl)phthalate	mg/kg	140	-	0.0709 J	-
Fluoranthene Fluorene	mg/kg mg/kg	24000 24000		0.126 0.0218 J	-
Hexachlorobenzene	mg/kg	1		ND (0.072)	-
Hexachlorobutadiene	mg/kg	25	-	ND (0.036)	-
Hexachlorocyclopentadiene	mg/kg	110	-	ND (0.36)	-
Hexachloroethane ndeno(1,2,3-cd)pyrene	mg/kg mg/kg	140 2	-	ND (0.18) 0.0621	-
sophorone	mg/kg	2000		ND (0.072)	-
2-Methylnaphthalene	mg/kg	2400	-	0.0511 J	-
2-Nitroaniline	mg/kg	23000		ND (0.18)	
3-Nitroaniline 1-Nitroaniline	mg/kg mg/kg	-	-	ND (0.18) ND (0.18)	
Naphthalene	mg/kg	17	-	0.0168 J	-
Nitrobenzene	mg/kg	340	-	ND (0.072)	-
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	mg/kg	0.3 390	-	ND (0.072)	-
N-Nitrosogipnenylamine Phenanthrene	mg/kg mg/kg	390	-	ND (0.18) 0.101	-
Pyrene	mg/kg	18000	-	0.133	-
1,2,4,5-Tetrachlorobenzene	mg/kg	-	-	ND (0.18)	-
GC/MS Semi-volatile TIC					
John John Volacile 110					
Total TIC, Semi-Volatile	mg/kg	-	-	5.29 J	

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC-87 – Flare Knock Out Drum

Client Sample ID:		NJ Non-	FKD-SS-1	FKD-SS-1	FKD-SS-2
Lab Sample ID:		Residential	JC3371-1	JC3371-1R	JC3371-2
Date Sampled:		Direct Contact	9/8/2015	9/8/2015	9/8/2015
Matrix:		Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	2.5-3.0 ft
•					
GC Semi-volatiles (NJDEP E	PH)				
EPH (C9-C28)	mg/kg	-	93.6	I - I	82.4
EPH (>C28-C40)	mg/kg	_	ND (7.1)	_	ND (7.3)
Total EPH (C9-C40)	mg/kg	_	93.6	_	82.4
	133			1	
GC Semi-volatiles (SW846 80	182A)				
Aroclor 1016	mg/kg	1		ND (0.032)	
Aroclor 1221	mg/kg	1	-	ND (0.032)	-
Aroclor 1232	mg/kg	1	-	ND (0.032)	-
Aroclor 1242	mg/kg	1	-	ND (0.032)	-
Aroclor 1248	mg/kg	1	-	ND (0.032)	
Aroclor 1254	mg/kg	1	-	0.0679	
Aroclor 1260	mg/kg	1	_	ND (0.032)	-
Aroclor 1268	mg/kg	1	_	ND (0.032)	-
Aroclor 1262	mg/kg	1	_	ND (0.032)	_
Aluminum	mg/kg	NA	-	7970	-
Antimony	mg/kg	450	-	ND (2.2)	-
Arsenic	mg/kg	19	-	4.8	-
Barium	mg/kg	59000	-	43.3	-
Beryllium	mg/kg	140	-	0.65	-
Cadmium	mg/kg	78	-	ND (0.54)	-
Calcium	mg/kg	-	-	7200	-
Chromium	mg/kg	-	-	24.6	-
Cobalt	mg/kg	590	-	6.1	-
Copper	mg/kg	45000	-	41.3	-
ron	mg/kg	-	-	15600	-
_ead	mg/kg	800	-	49.2	-
Magnesium	mg/kg	- 5900	-	3170	-
Manganese	mg/kg	5900 65	-	179 0.056	-
Mercury	mg/kg		-		-
Nickel	mg/kg	23000	-	23.1	
Potassium Selenium	mg/kg	5700	<u> </u>	1470 ND (2.2)	
	mg/kg	5700 5700			-
Silver	mg/kg	5700		1.1 ND (1100)	
Sodium Thallium	mg/kg	79		ND (1100) ND (1.1)	
Inailium /anadium	mg/kg	1100		ND (1.1) 27.1	
vanadium Zinc	mg/kg	11000		102	
r II IC:	mg/kg	110000	-	102	-
General Chemistry					

All results in mg/kg unless otherwise noted.								
mg/kg	milligrams per kilogram							
J	Estimated Value							
NS	Not Sampled							
ND	Not Detected							
NA	Not Analyzed							
()	Method Detection Limit							
В	Compound Found in Blank							
**	Health based standard defaults to soil saturation limit							
b	Result is from 2nd run							
a	Result is from 2nd run							
	Exceeds NJDEP Non-Residential Soil Remediation Standard							

Client Sample ID:		NJ Non-	CB-SS-1	CB-SS-1	CB-SS-2	CB-SS-2	CB-SS-2
Lab Sample ID:		Residential	JB99093-11	JB99093-11T	JB99093-12	JB99093-12R	JB99093-12T
Date Sampled:		Direct Contact - Soil	7/13/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015
Matrix:		3011	Soil	Soil	Soil	Soil	Soil
Deptj:			0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
	٠,						
GC/MS Volatiles (SW846 8260)	C)						
Acetone	mg/kg	NA	-	-	-	ND (2.3)	-
Benzene	mg/kg	5	-	-	-	0.195 J	-
Bromochloromethane	mg/kg	-	-	-	-	ND (0.32)	-
Bromodichloromethane	mg/kg	3	-	-	-	ND (0.16)	-
Bromoform	mg/kg	280	-	-	-	ND (0.25)	-
Bromomethane	mg/kg	59	-	-	-	ND (0.38)	-
2-Butanone (MEK)	mg/kg	44000	-	-	-	ND (2.0)	-
Carbon disulfide	mg/kg	110000	-	-	-	ND (0.24)	-
Carbon tetrachloride	mg/kg	2	-	-	-	ND (0.24)	-
Chlorobenzene	mg/kg	7400	-	-	-	ND (0.16)	-
Chloroethane	mg/kg	1100	-	-	-	ND (0.50)	-
2-Chloroethyl vinyl ether	mg/kg	-	-	-	-	-	-
Chloroform	mg/kg	2	-	-	-	ND (0.16)	-
Chloromethane	mg/kg	12	-	-	-	ND (0.27)	-
Cyclohexane	mg/kg	-	-	-	-	0.552 J	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	-	-	-	ND (0.57)	-
Dibromochloromethane	mg/kg	8	-	-	-	ND (0.21)	-
1.2-Dibromoethane	mg/kg	0.04	-	-	-	ND (0.14)	-
1,2-Dichlorobenzene	mg/kg	59000	-	-	-	ND (0.13)	-
1,3-Dichlorobenzene	mg/kg	59000	-	-	-	ND (0.16)	-
1.4-Dichlorobenzene	mg/kg	13	-	-	-	ND (0.24)	-
Dichlorodifluoromethane	mg/kg	230000	-	-	-	ND (0.38)	-
1.1-Dichloroethane	mg/kg	24	-	-	-	ND (0.15)	-
1.2-Dichloroethane	mg/kg	3	-	-	-	ND (0.14)	-
1,1-Dichloroethene	mg/kg	150	_	-	-	ND (0.62)	-
cis-1,2-Dichloroethene	mg/kg	560	-	-	-	ND (0.82)	-
trans-1,2-Dichloroethene	mg/kg	720	-	-	-	ND (0.62)	-
1,2-Dichloropropane	mg/kg	5	-	-	-	ND (0.25)	-
cis-1,3-Dichloropropene	mg/kg	7		-	-	ND (0.12)	-
trans-1,3-Dichloropropene	mg/kg	7	-	_	-	ND (0.19)	-
Ethylbenzene	mg/kg	110000		_	_	6.25	_
Freon 113	mg/kg	-		_	_	ND (0.47)	_
2-Hexanone	mg/kg	-	-	_	-	ND (1.4)	-
Isopropylbenzene	mg/kg	_		_	_	20.2	_
Methyl Acetate	mg/kg	NA	-	_	-	ND (0.90)	_
- ·	mg/kg	-			_	5.12	_
Methylcyclohexane Methyl Tert Butyl Ether	mg/kg	320		_	-	ND (0.16)	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-		-	-	ND (0.48)	-
· · · · · · · · · · · · · · · · · · ·	mg/kg	97	-	-	-	ND (1.0)	-
Methylene chloride Styrene	mg/kg	260	-	-	-	ND (1.0)	-
	mg/kg	11000	-	-	-	- (0.19)	-
Tert Butyl Alcohol		3	-	-	-	- ND (0.18)	-
1,1,2,2-Tetrachloroethane	mg/kg	5	-	-	-	ND (0.18) ND (0.32)	-
Tetrachloroethene	mg/kg mg/kg	91000	<u>-</u>	-	-	0.236 J	-
Toluene		91000		-	-		-
1,2,3-Trichlorobenzene	mg/kg	820	-	-	-	ND (0.18) ND (0.18)	-
1,2,4-Trichlorobenzene	mg/kg	4200		-			
1,1,1-Trichloroethane	mg/kg	4200 6	-	-	-	ND (0.16)	-
1,1,2-Trichloroethane	mg/kg		-	-	-	ND (0.15)	-
Trichloroethene	mg/kg	20	-	-	-	ND (0.15)	-
Trichlorofluoromethane	mg/kg	340000	-	-	-	ND (0.26)	-
Vinyl chloride	mg/kg	2	-	-	-	ND (0.21)	-
m,p-Xylene	mg/kg	170000	-	-	-	3.25	-
o-Xylene	mg/kg	170000	-	-	-	2.63	-
Xylene (total)	mg/kg	170000	-	-	-	5.88	-

Client Sample ID: CB-SS-1 CB-SS-1 CB-SS-2 CB-SS-2 CB-SS-2 NJ Non-Residential Lab Sample ID: JB99093-11 JB99093-11T JB99093-12 JB99093-12R JB99093-12T **Direct Contact** Date Sampled: 7/13/2015 7/13/2015 7/13/2015 7/13/2015 7/13/2015 Soil Soil Soil Soil Soil Soil Matrix: 1.5-2.0 ft 1.5-2.0 ft 1.5-2.0 ft 0.5-1.0 ft 0.5-1.0 ft Depti: GC/MS Volatile TIC 1029 J Total TIC, Volatile mg/kg ng/kg Total TIC. Volatile Total Alkanes ng/kg 0 mg/kg Total Alkanes GC/MS Semi-volatiles (SW846 8270D) Acenaphthene mg/kg ND (0.96) Acenaphthylene mg/kg 2-Chlorophenol mg/kg 2200 ND (1.9) Anthracene mg/kg 0.615.1 4-Chloro-3-methyl phenol mg/kg ND (4.8) Benzo(a)anthracene mg/kg 0.693 J ND (0.96) Benzo(a)pyrene mg/kg 2,4-Dichlorophenol 2100 ND (4.8) mg/kg Benzo(b)fluoranthene mg/kg ND (0.96) 2,4-Dimethylphenol mg/kg 14000 ND (4.8) Benzo(g,h,i)perylene mg/kg 30000 ND (0.96) 2,4-Dinitrophenol 1400 ND (4.8) mg/kg Benzo(k)fluoranthene ND (0.96) mg/kg Chrysene 4,6-Dinitro-o-cresol mg/kg 230 0.732.1 mg/kg 68 ND (4.8) Dibenzo(a.h)anthracene mg/kg 0.2 ND (0.96) Fluoranthene mg/kg 24000 1.15 2-Methylphenol ND (1.9) mg/kg mg/kg 24000 1.16 3&4-Methylphenol mg/kg ND (1.9) Indeno(1,2,3-cd)pyrene mg/kg ND (0.96) ND (4.8) 2-Nitrophenol mg/kg 4-Nitrophenol mg/kg ND (9.6) 194 mg/kg Phenanthrene mg/kg 300000 1 ND (4.8) Pentachlorophenol mg/kg 10 210000 Phenol mg/kg ND (1.9) 18000 Pyrene ma/ka 2,3,4,6-Tetrachlorophenol ND (4.8) mg/kg ND (4.8) 2,4,5-Trichlorophenol mg/kg 2,4,6-Trichlorophenol mg/kg 74 ND (4.8) Acetophenone mg/kg ND (4.8) 2400 ND (1.9) Atrazine ma/ka 4-Bromophenyl phenyl ether ND (1.9) mg/kg Butyl benzyl phthalate 14000 ND (1.9) mg/kg 0.489 J 1,1'-Biphenyl mg/kg Benzaldehyde mg/kg ND (4.8) ND (1.9) 2-Chloronaphthalene mg/kg 4-Chloroaniline ND (4.8) ma/ka ND (1.9) Carbazole mg/kg Caprolactam 340000 ND (1.9) mg/kg bis(2-Chloroethoxy)methane mg/kg ND (1.9) bis(2-Chloroethyl)ether mg/kg ND (1.9) bis(2-Chloroisopropyl)ether mg/kg 67 ND (1.9) 4-Chlorophenyl phenyl ether ND (1.9) mg/kg 2,4-Dinitrotoluene ND (0.96) mg/kg 2,6-Dinitrotoluene mg/kg ND (0.96) 3,3'-Dichlorobenzidine 1,4-Dioxane mg/kg ND (1.9) ND (0.96) mg/kg 0.646 J Dibenzofuran ma/ka Di-n-butyl phthalate 68000 ND (1.9) mg/kg Di-n-octyl phthalate 27000 ND (1.9) mg/kg Diethyl phthalate mg/kg 550000 ND (1.9) Dimethyl phthalate mg/kg ND (1.9) bis(2-Ethylhexyl)phthalate mg/kg 140 14 Hexachlorobenzene ND (1.9) mg/kg Hexachlorobutadiene ND (0.96) mg/kg Hexachlorocyclopentadiene 110 ND (9.6) mg/kg Hexachloroethane mg/kg 140 ND (4.8) Isophorone mg/kg 2000 ND (1.9) 2-Methylnaphthalene mg/kg 2400 26.8 23000 ND (4.8) 2-Nitroaniline mg/kg 3-Nitroaniline 4-Nitroaniline mg/kg ND (4.8) mg/kg ND (4.8) 340 Nitrobenzene mg/kg ND (1.9) N-Nitroso-di-n-propylamine 0.3 ND (1.9) mg/kg N-Nitrosodiphenvlamine 390 ma/ka ND (4.8) 1,2,4,5-Tetrachlorobenzene ND (4.8) mg/kg

Client Sample ID:		NJ Non-	CB-SS-1	CB-SS-1	CB-SS-2	CB-SS-2	CB-SS-2
Lab Sample ID:		Residential	JB99093-11	JB99093-11T	JB99093-12	JB99093-12R	JB99093-12T
Date Sampled:		Direct Contact Soil	7/13/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015
Matrix:		3011	Soil	Soil	Soil	Soil	Soil
Deptj:			0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
GC/MS Semi-volatile TIC							
Total TIC, Semi-Volatile	mg/kg	-	-	-	-	1530 J	-
Total Alkanes	mg/kg	-	-	-	-	-	-
Total Alkanes	mg/kg	-	-	-	-	312 J	-
GC Semi-volatiles (NJDEP EP	H)						
EPH (C9-C28)	mg/kg	-	9890	_	61100	_	_
EPH (>C28-C40)	mg/kg	-	3700	-	46600	-	-
Total EPH (C9-C40)	mg/kg	-	13600	-	108000	-	-
C10-C12 Aromatics	mg/kg	-	_	44.2	-	-	5030
C12-C16 Aromatics	mg/kg	-	-	556	-	-	384
C16-C21 Aromatics	mg/kg	-	-	1310	-	-	975
C21-C36 Aromatics	mg/kg	-	-	563	-	-	6810
Total Aromatics	mg/kg	-	-	2480	-	-	13200
C9-C12 Aliphatics	mg/kg	-	-	76	-	-	315
C12-C16 Aliphatics	mg/kg	-	-	1170	-	-	415
C16-C21 Aliphatics	mg/kg	-	-	1230	-	-	2290
C21-C40 Aliphatics	mg/kg	-	-	4160	-	-	46300
Total Aliphatics	mg/kg	-	-	6640	-	-	49300
Total EPH	mg/kg	-	-	9110	-	-	62500
GC Semi-volatiles (SW846 80	32A)						
,		, ,		1		ND (0.045)	
Aroclor 1016	mg/kg	1	-	-	-	ND (0.015)	-
Aroclor 1221	mg/kg	1	-	-	-	ND (0.028)	-
Aroclor 1232 Aroclor 1242	mg/kg mg/kg	1		-	-	ND (0.016) ND (0.022)	-
Aroclor 1248	mg/kg	1	-	_	-	ND (0.015)	-
Aroclor 1254	mg/kg	1		_	-	ND (0.021)	-
Aroclor 1260	mg/kg	1	-	-	-	ND (0.020)	-
Aroclor 1268	mg/kg	1	_	-	-	ND (0.015)	-
Aroclor 1262	mg/kg	1	-	-	-	ND (0.014)	-
Metals Analysis				•		•	
•				1	T	1	T
Aluminum	mg/kg	NA	-	-	-	10800	-
Antimony	mg/kg	450	-	-	-	<5.6 b	-
Arsenic	mg/kg	19	-	-	-	20.7 b	-
Barium	mg/kg	59000 140	-	-	-	806	-
Beryllium	mg/kg mg/kg	78	-	-	-	24.2	
Cadmium Calcium	mg/kg	-		-	-	21300	-
Chromium	mg/kg	-		-	-	169 b	-
Chromium, Hexavalent	mg/kg	-	-	-	-	-	-
Cobalt	mg/kg	590	<u> </u>	-	-	12.8	-
Copper	mg/kg	45000	-	-	-	753 ^b	-
Iron	mg/kg	-	-	-	-	74800	-
Lead	mg/kg	800	-	-	-	319 b	-
Magnesium	mg/kg	-	-	-	-	3350	-
Manganese	mg/kg	5900	-	-	-	726 ^b	-
Mercury	mg/kg	65	-	-	-	8.4	-
Nickel	mg/kg	23000	-	-	-	198	-
Potassium	mg/kg	-	-	-	-	<1400	-
Selenium	mg/kg	5700	-	-	-	<5.6 ^b	-
Silver	mg/kg	5700	-	-	-	2.5 ^b	-
Sodium	mg/kg	-	-	-	-	<1400	-
Sulfur	mg/kg	-	-	-	-	-	-
Thallium	mg/kg	79	-	-	-	<2.8 ^b	-
Vanadium	mg/kg mg/kg	1100 110000	-	-	-	42.7 5600 ^b	-

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC-88 – Compressor Building

Client Sample ID:		NJ Non-	CB-SS-1	CB-SS-1	CB-SS-2	CB-SS-2	CB-SS-2
Lab Sample ID:		Residential Direct Contact	JB99093-11	JB99093-11T	JB99093-12	JB99093-12R	JB99093-12T
Date Sampled:		Soil	7/13/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015
Matrix:			Soil	Soil	Soil	Soil	Soil
Deptj:			0.5-1.0 ft	0.5-1.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
General Chemistry							
Iron, Ferrous	%	-	-	-	-	-	-
Nitrogen, Ammonia	mg/kg	-	-	-	-	-	-
Redox Potential Vs H2	mv	-	-	-	-	-	-
Solids, Percent	%	-	91.2	-	69	-	-
Solids, Percent	%	-	-	-	-	-	-
Sulfide Screen		•	i	-	-	i	-
Sulfide, Neutral Extraction	mg/kg	-	i	-	-	-	-
Total Organic Carbon	mg/kg	-	i	-	-	-	-
pH	su	-	i	-	-	-	-

All results in mg/kg u	inless otherwise noted.
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
a	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Client Sample ID:		NJ Non- Residential	FCC-SS-1	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-3	FCC-SS-3	FCC-SS-3	FCC-SS-4	FCC-SS-4R
Lab Sample ID:		Direct Contact	JB99097-3	JB99093-13	JB99093-13R	JB99093-13U	JB99093-13UR	JC2396-2	JB99097-4	JB99097-4R	JB99097-4RT	JB99093-10	JB99944-3
Date Sampled:		Soil	7/14/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015	8/26/2015	7/14/2015	7/14/2015	7/14/2015	7/13/2015	7/23/2015
Matrix: Depth:			Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 1.0-1.5 ft	Soil 1.0-1.5 ft
Бериі.			1.0-2.0 10	1.0-2.0 10	1.0-2.010	1.0-2.0 10	1.0-2.0 10	1.0-2.0 10	1.5-2.0 10	1.5-2.0 10	1.5-2.010	1.0-1.010	1.0-1.0 10
GC/MS Volatiles (SW846 8260C	:)												
A 4		NA	0.0256	0.0181	-	-		ı	0.0246	T	-	0.0453	ND (0.31)
Acetone Acrolein	mg/kg mg/kg	1	0.0256	0.0161	-	-	-	-	0.0246	-	-	0.0455	- ND (0.31)
Acrylonitrile	mg/kg	3	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-
Benzene	mg/kg	5	ND (0.00013)	0.007	-	-	-	_	ND (0.00013)	-	-	ND (0.00015)	0.0984
			ND (0.00031)	ND (0.00040)					ND (0.00030)			ND (0.00035)	ND (0.043)
Bromochloromethane	mg/kg	-	ND (0.00031)	ND (0.00040)	-		-	-	ND (0.00030)	-	-	ND (0.00033)	ND (0.043)
Bromodichloromethane	mg/kg	3	ND (0.00016)	ND (0.00020)	-	-	-	-	ND (0.00015)	-	-	ND (0.00018)	ND (0.022)
Bromoform	mg/kg	280	ND (0.00024)	ND (0.00031)	-	-	-	-	ND (0.00023)	-	-	ND (0.00027)	ND (0.033)
Bromomethane	mg/kg	59	ND (0.00037)	ND (0.00048)		_	_	_	ND (0.00036)	_		ND (0.00041)	ND (0.050)
2-Butanone (MEK)	mg/kg	44000	ND (0.0019)	ND (0.0025)		-	-	-	ND (0.0019)	-	-	0.0117	ND (0.26)
Carbon disulfide	mg/kg	110000	0.00029 J	0.00060 J	-	-	-	-	0.00081 J	-	-	0.0029	ND (0.032)
Carbon tetrachloride	mg/kg	2	ND (0.00023)	ND (0.00030)		-	-	_	ND (0.00023)	-		ND (0.00026)	ND (0.032)
		7400	ND (0.00016)	ND (0.00000)					ND (0.00015)			ND (0.00040)	0.510
Chlorobenzene	mg/kg	7400	,	ND (0.00020)	-	-	•	-	, ,	-	-	ND (0.00018)	0.519
Chloroethane	mg/kg	1100	ND (0.00048)	ND (0.00063)	-	-	-	-	ND (0.00047)	-	-	ND (0.00054)	ND (0.067)
2-Chloroethyl vinyl ether	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	2	ND (0.00015)	ND (0.00019)	-	-	-	-	ND (0.00015)	-	-	ND (0.00017)	ND (0.021)
Chloromethane	mg/kg	12	ND (0.00026)	ND (0.00034)	-	-	-	_	ND (0.00026)	-	-	ND (0.00030)	ND (0.036)
			ND (0.00032)	ND (0.00041)					ND (0.00031)			ND (0.00036)	0.496
Cyclohexane	mg/kg	•	, ,	ND (0.00041)	-	-	-	-	ND (0.00031)	-	-	ND (0.00036)	0.496
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00055)	ND (0.00071)	-	-	-	-	ND (0.00054)	-	-	ND (0.00062)	ND (0.075)
Dibromochloromethane	mg/kg	8	ND (0.00021)	ND (0.00027)	-	-	-	-	ND (0.00020)	-	-	ND (0.00023)	ND (0.028)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00013)	ND (0.00017)	_	_			ND (0.00013)	_		ND (0.00015)	ND (0.018)
1,2-Dibiomoetriane								-					
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00012)	ND (0.00016)	-	-	-	-	ND (0.00012)	-	-	ND (0.00014)	3.74
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00016)	ND (0.00021)	-	-	-	-	ND (0.00015)	-	-	ND (0.00018)	0.426
1,4-Dichlorobenzene	mg/kg	13	ND (0.00023)	ND (0.00029)	_	-	-	_	ND (0.00022)	_	_	ND (0.00025)	0.815
Dichlorodifluoromethane	mg/kg	230000	ND (0.00036)	ND (0.00047)		-	-	-	ND (0.00036)	-	-	ND (0.00041)	ND (0.050)
1,1-Dichloroethane	mg/kg	24	ND (0.00014)	ND (0.00018)	-	-	-	-	ND (0.00014)	-	-	ND (0.00016)	ND (0.020)
1,2-Dichloroethane	mg/kg	3	ND (0.00013)	ND (0.00018)	-	-	-	-	ND (0.00013)	-	-	ND (0.00015)	ND (0.019)
1,1-Dichloroethene	mg/kg	150	ND (0.00059)	ND (0.00077)		_	_	-	ND (0.00058)			ND (0.00067)	ND (0.082)
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00078)	ND (0.0010)	-	-	-	-	0.0012	-	-	ND (0.00088)	ND (0.11)
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00060)	ND (0.00078)	-	-	-	-	ND (0.00058)	-	-	ND (0.00067)	ND (0.082)
1,2-Dichloropropane	mg/kg	5	ND (0.00024)	ND (0.00031)	-	-	-	-	ND (0.00023)	-	-	ND (0.00027)	ND (0.033)
aia 1.2 Diablessessesses	malka	7	ND (0.00012)	ND (0.00015)					ND (0.00012)			ND (0.00013)	ND (0.016)
cis-1,3-Dichloropropene	mg/kg	,	ND (0.00012)	ND (0.00013)	-	-	-	-	ND (0.00012)	-	-		`
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00018)	ND (0.00023)	-		-	-	ND (0.00017)	-	-	ND (0.00020)	ND (0.024)
Ethylbenzene Freon 113	mg/kg mg/kg	110000	ND (0.00016) ND (0.00045)	ND (0.00021) ND (0.00059)	-	-	-	-	ND (0.00016) ND (0.00044)	-	-	0.00041 J ND (0.00051)	1.12 ND (0.062)
2-Hexanone	mg/kg		ND (0.00043)	ND (0.0018)	-	-	-	-	ND (0.0013)	-	-	ND (0.00051)	ND (0.19)
Isopropylbenzene	mg/kg	-	ND (0.00011)	ND (0.00014)		-	-	-	ND (0.00010)	-	-	ND (0.00012)	2.63
Methyl Acetate	mg/kg	NA	ND (0.00086)	ND (0.0011)	-	-	-	-	ND (0.00085)	-	-	ND (0.00097)	ND (0.12)
Methylcyclohexane	mg/kg mg/kg	320	ND (0.00023) ND (0.00015)	ND (0.00030) ND (0.00020)	-	-	-	-	ND (0.00022) ND (0.00015)	-	-	ND (0.00026) ND (0.00017)	9.76 ND (0.021)
Methyl Tert Butyl Ether 4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00015)	ND (0.00020)	-	-	-	-	ND (0.00015)	-	-	ND (0.00017)	ND (0.021) ND (0.063)
Methylene chloride	mg/kg	97	ND (0.00099)	ND (0.0013)	-	-	-	-	ND (0.00097)	-	-	ND (0.0011)	ND (0.14)
Styrene	mg/kg	260	ND (0.00018)	ND (0.00023)	-	-	-	-	ND (0.00018)	-	-	ND (0.00020)	ND (0.025)
Tert Butyl Alcohol	mg/kg	11000 3	ND (0.0027) ND (0.00018)	ND (0.0035) ND (0.00023)	-		-	-	ND (0.0026) ND (0.00017)	-	-	ND (0.0030) ND (0.00020)	ND (0.37) ND (0.024)
1,1,2,2-Tetrachloroethane Tetrachloroethene	mg/kg mg/kg	5	ND (0.00018) ND (0.00030)	ND (0.00023) ND (0.00039)	-	-	-	-	ND (0.00017) ND (0.00030)	-	-	ND (0.00020) ND (0.00034)	ND (0.024) ND (0.042)
Toluene	mg/kg	91000	ND (0.00021)	0.0012 J	-	-	-	-	0.00025 J	-	-	0.0057	0.341
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00018)	ND (0.00023)	-		-	-	ND (0.00017)	-	-	ND (0.00020)	ND (0.024)
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	mg/kg mg/kg	820 4200	ND (0.00017) ND (0.00015)	ND (0.00022) ND (0.00019)	-	-	-	-	ND (0.00017) ND (0.00015)	-	-	ND (0.00019) ND (0.00017)	ND (0.023) ND (0.021)
1,1,2-Trichloroethane	mg/kg	6	ND (0.00015)	ND (0.00019)	-	-	-	-	ND (0.00013)	-	-	ND (0.00017)	ND (0.021) ND (0.020)
Trichloroethene	mg/kg	20	ND (0.00015)	ND (0.00019)	-		-	-	ND (0.00014)	-	-	ND (0.00017)	ND (0.020)
Trichlorofluoromethane	mg/kg	340000	ND (0.00025)	ND (0.00033)			-	-	ND (0.00025)	-	-	ND (0.00028)	ND (0.034)
Vinyl chloride m,p-Xylene	mg/kg mg/kg	170000	ND (0.00020) ND (0.00035)	ND (0.00026) 0.0034	-	-	-	-	ND (0.00019) ND (0.00035)	-	-	ND (0.00022) 0.0017	ND (0.027) 13.7
o-Xylene	mg/kg	170000	ND (0.00038)	0.0035	-	-	-	-	ND (0.00027)	-	-	0.0011	6.7
Xylene (total)	mg/kg	170000	ND (0.00028)	0.0069	-	-	-	-	ND (0.00027)	-	-	0.0028	20.4
GC/MS Volatile TIC													
CO.MO VOIGING NO													
Total TIC, Volatile	mg/kg	-	0	0.2144 J	-		-	-	0	-	-	0	112.7 J
Total TIC, Volatile	mg/kg	-	- 0	-	-	-	-	-	- 0	-	-	- 0	- 26.1 J
Total Alkanes Total Alkanes	mg/kg mg/kg	-	-	-	-	-	-	-	-	-	-	-	∠0.1 J
. o.c. Alkanos	5***9								1	l	1	l	

Client Sample ID:		NJ Non- Residential	FCC-SS-1	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-3	FCC-SS-3	FCC-SS-3	FCC-SS-4	FCC-SS-4R
Lab Sample ID:		Direct Contact	JB99097-3	JB99093-13	JB99093-13R	JB99093-13U	JB99093-13UR	JC2396-2	JB99097-4	JB99097-4R	JB99097-4RT	JB99093-10	JB99944-3
Date Sampled:		Soil	7/14/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015	8/26/2015	7/14/2015	7/14/2015	7/14/2015	7/13/2015	7/23/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.0-1.5 ft	1.0-1.5 ft
GC/MS Semi-volatiles (SW846	8270D)												
Acenaphthene	mg/kg	37000	ND (0.036)	ND (0.039)	-		-		ND (0.036)	-	-	0.0381	55.1
Acenaphthylene 2-Chlorophenol	mg/kg mg/kg	300000 2200	ND (0.036) ND (0.072)	ND (0.039) ND (0.079)	-	-	-	-	ND (0.036) ND (0.072)	-	-	ND (0.038) ND (0.076)	ND (0.18) ND (0.37)
Anthracene	mg/kg	30000	ND (0.036)	ND (0.039)	-		-		ND (0.036)	-	-	0.0604	45
4-Chloro-3-methyl phenol Benzo(a)anthracene	mg/kg mg/kg	2	ND (0.18) ND (0.036)	ND (0.20) 0.0312 J	-	-	-	-	ND (0.18) ND (0.036)	-	-	ND (0.19) 0.0453	ND (0.92) 6.26
Benzo(a)pyrene	mg/kg	0.2	ND (0.036)	0.046	-		-		ND (0.036)	-	-	0.0164 J ND (0.19)	1.39
2,4-Dichlorophenol Benzo(b)fluoranthene	mg/kg mg/kg	2100	ND (0.18) ND (0.036)	ND (0.20) 0.0359 J	-	-	-	-	ND (0.18) ND (0.036)	-	-	ND (0.19) ND (0.038)	ND (0.92) 0.706
2,4-Dimethylphenol	mg/kg	14000	ND (0.18)	ND (0.20)	-		-	-	ND (0.18)	-	-	ND (0.19)	ND (0.92)
Benzo(g,h,i)perylene 2,4-Dinitrophenol	mg/kg mg/kg	30000 1400	ND (0.036) ND (0.18)	0.0292 J ND (0.20)	-	-	-	-	ND (0.036) ND (0.18)	-	-	ND (0.038) ND (0.19)	0.379 ND (0.92)
Benzo(k)fluoranthene	mg/kg	23 230	ND (0.036)	ND (0.039)	-		-	-	ND (0.036)	-	-	ND (0.038)	0.111 J
Chrysene 4,6-Dinitro-o-cresol	mg/kg mg/kg	68	ND (0.036) ND (0.18)	0.0889 ND (0.20)	-	-	-	-	ND (0.036) ND (0.18)	-	-	0.159 ND (0.19)	12.9 ND (0.92)
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.036)	ND (0.039)	-		-	-	ND (0.036)	-	-	ND (0.038)	0.279
Fluoranthene 2-Methylphenol	mg/kg mg/kg	24000 3400	ND (0.036) ND (0.072)	ND (0.039) ND (0.079)	-	-	-	-	ND (0.036) ND (0.072)	-	-	0.0564 ND (0.076)	9.1 ND (0.37)
Fluorene 3&4-Methylphenol	mg/kg mg/kg	24000	ND (0.036) ND (0.072)	ND (0.039) ND (0.079)	-		-	-	ND (0.036) ND (0.072)	-	-	0.0409 ND (0.076)	67.5 ND (0.37)
Indeno(1,2,3-cd)pyrene	mg/kg mg/kg	2	ND (0.072) ND (0.036)	ND (0.079) ND (0.039)	-	-	-	-	ND (0.072) ND (0.036)	-	-	ND (0.076) ND (0.038)	ND (0.37) 0.218
2-Nitrophenol	mg/kg	-	ND (0.18)	ND (0.20)	-	-	-	-	ND (0.18)		-	ND (0.19)	ND (0.92)
4-Nitrophenol Naphthalene	mg/kg mg/kg	- 17	ND (0.36) ND (0.036)	ND (0.39) 0.0199 J	-		-	-	ND (0.36) ND (0.036)	-	-	ND (0.38) ND (0.038)	ND (1.8) 106
Phenanthrene	mg/kg	300000	ND (0.036)	0.152	-	-	-	-	ND (0.036)	-	-	0.193 ND (0.10)	198 ND (0.03)
Pentachlorophenol Phenol	mg/kg mg/kg	10 210000	ND (0.18) ND (0.072)	ND (0.20) ND (0.079)	-	-	-	-	ND (0.18) ND (0.072)	-	-	ND (0.19) 0.0451 J	ND (0.92) ND (0.37)
Pyrene 2,3,4,6-Tetrachlorophenol	mg/kg	18000	ND (0.036) ND (0.18)	0.123 ND (0.20)	-	-	-		ND (0.036) ND (0.18)	-		0.527 ND (0.19)	69.9 ND (0.92)
2,4,5-Trichlorophenol	mg/kg mg/kg	68000	ND (0.18)	ND (0.20)	-		-	-	ND (0.18)	-	-	ND (0.19)	ND (0.92)
2,4,6-Trichlorophenol Acetophenone	mg/kg mg/kg	74 5	ND (0.18) ND (0.18)	ND (0.20) ND (0.20)	-	-	-	-	ND (0.18) ND (0.18)	-	-	ND (0.19) ND (0.19)	ND (0.92) ND (0.92)
Atrazine	mg/kg	2400	ND (0.072)	ND (0.079)	-		-	-	ND (0.072)	-	-	ND (0.076)	ND (0.37)
4-Bromophenyl phenyl ether Butyl benzyl phthalate	mg/kg mg/kg	14000	ND (0.072) ND (0.072)	ND (0.079) ND (0.079)	-	-	-	-	ND (0.072) ND (0.072)	-	-	ND (0.076) ND (0.076)	ND (0.37) ND (0.37)
1,1'-Biphenyl	mg/kg	34000	ND (0.072)	ND (0.079)	-		-		ND (0.072)	-	-	ND (0.076)	4.08
Benzaldehyde 2-Chloronaphthalene	mg/kg mg/kg	68000	ND (0.18) ND (0.072)	ND (0.20) ND (0.079)	-		-	-	ND (0.18) ND (0.072)	-	-	ND (0.19) ND (0.076)	ND (0.92) ND (0.37)
4-Chloroaniline	mg/kg		ND (0.18)	ND (0.20)	-	-	-		ND (0.18)	-	-	ND (0.19)	ND (0.92)
Carbazole Caprolactam	mg/kg mg/kg	96 340000	ND (0.072) ND (0.072)	ND (0.079) ND (0.079)	-	-	-	-	ND (0.072) ND (0.072)			ND (0.076) ND (0.076)	ND (0.37) ND (0.37)
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.072)	ND (0.079)	-	-	-	-	ND (0.072)	-	-	ND (0.076)	ND (0.37)
bis(2-Chloroethyl)ether bis(2-Chloroisopropyl)ether	mg/kg mg/kg	2 67	ND (0.072) ND (0.072)	ND (0.079) ND (0.079)	-	-	-	-	ND (0.072) ND (0.072)	-	-	ND (0.076) ND (0.076)	ND (0.37) ND (0.37)
4-Chlorophenyl phenyl ether	mg/kg		ND (0.072)	ND (0.079)	-		-		ND (0.072)	-	-	ND (0.076)	ND (0.37)
2,4-Dinitrotoluene 2,6-Dinitrotoluene	mg/kg mg/kg	3	ND (0.036) ND (0.036)	ND (0.039) ND (0.039)	-	-	-	-	ND (0.036) ND (0.036)	-	-	ND (0.038) ND (0.038)	ND (0.18) ND (0.18)
3,3'-Dichlorobenzidine 1,4-Dioxane	mg/kg	4	ND (0.072) ND (0.036)	ND (0.079) ND (0.039)	-	-	-	-	ND (0.072) ND (0.036)	-	-	ND (0.076) ND (0.038)	ND (0.37) ND (0.18)
Dibenzofuran	mg/kg mg/kg	-	ND (0.036)	ND (0.039)	-	-	-	-	ND (0.036) ND (0.072)	-	-	ND (0.036)	20.4
Di-n-butyl phthalate Di-n-octyl phthalate	mg/kg	68000 27000	ND (0.072) ND (0.072)	ND (0.079) ND (0.079)	-	-	-		ND (0.072) ND (0.072)	-	-	ND (0.076) ND (0.076)	ND (0.37) ND (0.37)
Diethyl phthalate	mg/kg mg/kg	550000	ND (0.072)	ND (0.079)	-		-	-	ND (0.072)	-	-	ND (0.076)	ND (0.37)
Dimethyl phthalate bis(2-Ethylhexyl)phthalate	mg/kg mg/kg	- 140	ND (0.072) ND (0.072)	ND (0.079) ND (0.079)	-	-	-	-	ND (0.072) ND (0.072)	-	-	ND (0.076) 0.321	ND (0.37) 0.826
Hexachlorobenzene	mg/kg	1	ND (0.072)	ND (0.079)	-		-		ND (0.072)		-	ND (0.076)	ND (0.37)
Hexachlorobutadiene Hexachlorocyclopentadiene	mg/kg mg/kg	25 110	ND (0.036) ND (0.36)	ND (0.039) ND (0.39)	-	-	-	-	ND (0.036) ND (0.36)	-	-	ND (0.038) ND (0.38)	ND (0.18) ND (1.8)
Hexachloroethane	mg/kg	140	ND (0.18)	ND (0.20)	-		-		ND (0.18)	-	-	ND (0.19)	ND (0.92)
Isophorone 2-Methylnaphthalene	mg/kg mg/kg	2000 2400	ND (0.072) ND (0.072)	ND (0.079) 0.0426 J	-	-	-	-	ND (0.072) ND (0.072)	-	-	ND (0.076) 0.0552 J	ND (0.37) 535
2-Nitroaniline	mg/kg	23000	ND (0.18)	ND (0.20)	-	-	-	-	ND (0.18)	-	-	ND (0.19)	ND (0.92)
3-Nitroaniline 4-Nitroaniline	mg/kg mg/kg		ND (0.18) ND (0.18)	ND (0.20) ND (0.20)	-	-	-	-	ND (0.18) ND (0.18)	-	-	ND (0.19) ND (0.19)	ND (0.92) ND (0.92)
Nitrobenzene	mg/kg	340	ND (0.072)	ND (0.079)	-	-	-	-	ND (0.072)	-	-	ND (0.076)	ND (0.37)
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	mg/kg mg/kg	0.3 390	ND (0.072) ND (0.18)	ND (0.079) ND (0.20)	-	-	-	-	ND (0.072) ND (0.18)	-	-	ND (0.076) ND (0.19)	ND (0.37) ND (0.92)
1,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.18)	ND (0.20)	-	-	-	-	ND (0.18)	-	-	ND (0.19)	ND (0.92)
COME Sami water To													
GC/MS Semi-volatile TIC													
Total TIC, Semi-Volatile	mg/kg		0.89 J	0.36 J	-		-		1.73 J	-	-	13.11 J	591 J
Total Alkanes	mg/kg	-	-	-	-		-	-	-	-	-	-	-
Total Alkanes	mg/kg	-	0	0	-	-	-	-	0	-	-	5.08 J	0
GC Volatiles (SW846 8015C)													
(311010 00130)													
TPH-GRO (C6-C10)	mg/kg	-	-	-	-		-	-	-	-	-	-	-
CC Comi valetile - (NIDES TO													
GC Semi-volatiles (NJDEP EPH)												
EPH (C9-C28)	mg/kg	-	-	-	68.4	-	-	-	-	-	-	-	-
EPH (>C28-C40)	mg/kg	-	-	-	57.9		-	-	-	-	-	-	-
Total EPH (C9-C40)	mg/kg	-	-	-	126	-	-	-	-	-	-	-	-

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC-89 – Cracking Tower

Client Sample ID:		NJ Non- Residential	FCC-SS-1	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-2	FCC-SS-3	FCC-SS-3	FCC-SS-3	FCC-SS-4	FCC-SS-4R
Lab Sample ID:		Direct Contact	JB99097-3	JB99093-13	JB99093-13R	JB99093-13U	JB99093-13UR	JC2396-2	JB99097-4	JB99097-4R	JB99097-4RT	JB99093-10	JB99944-3
Date Sampled:		Soil	7/14/2015	7/13/2015	7/13/2015	7/13/2015	7/13/2015	8/26/2015	7/14/2015	7/14/2015	7/14/2015	7/13/2015	7/23/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.0-1.5 ft	1.0-1.5 ft
Metals Analysis													
metals Allalysis													
Aluminum	mg/kg	NA	9780	40200	-	-	-	-	11900	-	-	5540	4090
Antimony	mg/kg	450	<2.1	10.7	-	-	-	-	<2.3	-	-	<2.4	<2.2
Arsenic	mg/kg	19	5.1	129	-	-	-	-	5.7		-	<2.4	9.5
Barium	mg/kg	59000	63.1	64.5	-	-	-	-	79.2	-	-	33.4	24.7
Beryllium	mg/kg	140	0.61	0.35	-	-	-	-	0.73	-	-	<0.24	0.3
Cadmium	mg/kg	78	<0.53	<1.2 ^b	-	-	-	-	<0.57	-	-	<0.59	3.6
Calcium	mg/kg	-	1860	70300	-	-	-	-	2540	-	-	46200	2350
Chromium	mg/kg	_	18.7	263	-	-	-		22.3	-	-	7.2	92.9
Chromium, Hexavalent	mg/kg	-	-	-	-	2.9	2.8	0.45	-	<0.45	< 0.45	-	
Cobalt	mg/kg	590	7.1	13.1	-		-	-	9.4	-	-	<5.9	5.4
Copper	mg/kg	45000	19.5	17.7	-	-	-	-	24.7	-	-	58.7	39
Iron	mg/kg	-	20000	6800	-	-	-	-	21600	-	-	12400	14900
Lead	mg/kg	800	17.5	99.8	-		-	-	22.4	-	-	16	69.6
Magnesium	mg/kg	-	3580	7940	-	-	-	-	4250	-	-	4530	1440
Manganese	mg/kg	5900	270	104	-				295	-		140	98.7
Mercury	mg/kg	65	0.038	<0.035	-			-	<0.035	-		<0.037	0.3
Nickel	mg/kg	23000	16.4	285	-		-	-	22.7	-	-	7.4	19.1
	mg/kg	23000	1690	<1200	-		-	-	2140		-	<1200	<1100
Potassium	mg/kg	5700	<2.1	<2.4			-		<2.3	- :	-	<2.4	<2.2
Selenium	mg/kg	5700	<0.53	<1.2 b	-		-		<0.57	-	-	<0.59	0.59
Silver			<1100	1430				-	<1100	-	-	<1200	<1100
Sodium	mg/kg	-			-	-	-	-		-	-		
Sulfur	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	79	<1.1	<1.2	-	-	-	-	<1.1	-	-	<1.2	<1.1
Vanadium	mg/kg	1100	24.7	331	-	-	-	-	28.9	-	-	31.6	25.2
Zinc	mg/kg	110000	41	82	-	-	-		67.6	-	-	163	2170
General Chemistry													
Iron, Ferrous	%												
Nitrogen, Ammonia	mg/kg	-	5.6	11.3	-	-	-	-	-	-	0.63 °	3.4	20.4
Redox Potential Vs H2	mv	-	-	-	-	369	-	130	8.3	-	-	-	-
Solids, Percent	%	-	90.5	83.1	-	-	-	92.3	-	541	-	84.9	-
Solids, Percent	%	-	-	-	-	-	-	-	89.1	-	-	-	88.4
Sulfide, Screen		-	-	-	-	-	-	-	-	-	NEGATIVE d	-	-
Sulfide, Neutral Extraction	mg/kg	-	<4.4	<4.7	-	-	-	-	<4.5	-	-	<4.7	4.4
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	-	2150		-
pH	su	-	7.03	11.48	-	11.18	-	10.98	8.68	8.35	-	11.2	7.98

All results in mg/kg unless otherw	ise noted.						
mg/kg	milligrams per kilogram						
J	Estimated Value						
NS	Not Sampled						
ND	Not Detected						
NA	Not Analyzed						
()	Method Detection Limit						
В	Compound Found in Blank						
**	Health based standard defaults to soil sal	uration limit					
ь	Result is from 2nd run						
а	Result is from 2nd run						
	Exceeds NJDEP Non-Residential Soil Re	mediation Standard	ı				

Client Sample ID:		NJ Non-	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-2
Lab Sample ID:		Residential Direct Contact	JB98904-1	JB98904-1R	JB98904-1T	JB98904-1TU	JB98904-2
Date Sampled:		Soil	7/9/2015	7/9/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil	Soil
Depth:			2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.0-2.5 ft
GC/MS Volatiles (SW846 82600	C)						
Acetone	mg/kg	NA	-	0.0404	-	-	-
Benzene	mg/kg	5	-	ND (0.00018)	-	-	-
Bromochloromethane	mg/kg	-	-	ND (0.00041)	-	-	-
Bromodichloromethane	mg/kg	3	-	ND (0.00021)	-	-	-
Bromoform	mg/kg	280	-	ND (0.00031)	-	-	-
Bromomethane	mg/kg	59	-	ND (0.00048)	-	-	-
2-Butanone (MEK)	mg/kg	44000	-	ND (0.0025)	-	-	-
Carbon disulfide	mg/kg	110000	-	ND (0.00030)	-	-	-
Carbon tetrachloride	mg/kg	2	-	ND (0.00031)	-	-	-
Chlorobenzene	mg/kg	7400	-	ND (0.00021)	-	-	-
Chloroethane	mg/kg	1100	-	ND (0.00064)	-	-	-
Chloroform	mg/kg	2	-	ND (0.00020)	-	-	-
Chloromethane	mg/kg	12	-	ND (0.00035)	-	-	-
Cyclohexane	mg/kg	-	-	0.0102	-	-	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	-	ND (0.00072)	-	-	-
Dibromochloromethane	mg/kg	8	-	ND (0.00027)	-	-	-
1,2-Dibromoethane	mg/kg	0.04	-	ND (0.00017)	-	-	-
1,2-Dichlorobenzene	mg/kg	59000	-	ND (0.00016)	-	-	-
1,3-Dichlorobenzene	mg/kg	59000	-	ND (0.00021)	-	-	-
1,4-Dichlorobenzene	mg/kg	13	-	ND (0.00030)	-	-	-
Dichlorodifluoromethane	mg/kg	230000	-	ND (0.00048)	-	-	-
1,1-Dichloroethane	mg/kg	24	-	ND (0.00019)	-	-	-
1,2-Dichloroethane	mg/kg	3	-	ND (0.00018)	-	-	-
1,1-Dichloroethene	mg/kg	150	-	ND (0.00079)	-	-	-
cis-1,2-Dichloroethene	mg/kg	560	-	ND (0.0010)	-	-	-
trans-1,2-Dichloroethene	mg/kg	720	-	ND (0.00079)	-	-	-
1,2-Dichloropropane	mg/kg	5	-	ND (0.00032)	-	-	-
cis-1,3-Dichloropropene	mg/kg	7	-	ND (0.00016)	-	-	-
trans-1,3-Dichloropropene	mg/kg	7	-	ND (0.00024)	-	-	-
Ethylbenzene	mg/kg	110000	-	0.0452	-	-	-
Freon 113	mg/kg	-	-	ND (0.00060)	-	-	-
2-Hexanone	mg/kg	-	-	ND (0.0018)	-	-	-
Isopropylbenzene	mg/kg	-	-	0.0051	-	-	-
Methyl Acetate	mg/kg	NA	-	ND (0.0011)	-	-	-
Methylcyclohexane	mg/kg	-	-	0.00085 J	-	-	-
Methyl Tert Butyl Ether	mg/kg	320	-	ND (0.00020)	-	-	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-	-	ND (0.00061)	-	-	-
Methylene chloride	mg/kg	97	-	ND (0.0013)	-	-	-
Styrene	mg/kg	260	-	ND (0.00024)	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	3	-	ND (0.00023)	-	-	-
Tetrachloroethene	mg/kg	5	-	ND (0.00040)	-	-	-
Toluene	mg/kg	91000	-	ND (0.00028)	-	-	-
1,2,3-Trichlorobenzene	mg/kg	820	-	ND (0.00023) ND (0.00022)	-	-	-
1,2,4-Trichlorobenzene	mg/kg		-	(/	-	-	-
1,1,1-Trichloroethane	mg/kg	4200	-	ND (0.00020)	-	-	-
1,1,2-Trichloroethane	mg/kg	6 20	-	ND (0.00020) ND (0.00020)	-	-	-
Trichloroethene	mg/kg				-		-
Trichlorofluoromethane	mg/kg	340000	-	ND (0.00033)	-	-	-
Vinyl chloride	mg/kg	170000	-	ND (0.00026)	-	-	-
Xylene (total)	mg/kg	170000	-	0.0649	-	-	_
GC/MS Volatile TIC							
Total TIC, Volatile	mg/kg	-	_	0.214 J	_	_	_

Client Sample ID:		NJ Non-	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-2
Lab Sample ID: Date Sampled:		Residential Direct Contact Soil	JB98904-1 7/9/2015	JB98904-1R 7/9/2015	JB98904-1T 7/9/2015	JB98904-1TU 7/9/2015	JB98904-2 7/9/2015
Matrix:		3011	Soil	Soil	Soil	Soil	Soil
Depth:			2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.0-2.5 ft
GC/MS Semi-volatiles (SW846	8270D)						
2-Chlorophenol	mg/kg	2200	-	ND (0.070)	-		
4-Chloro-3-methyl phenol	mg/kg	-	-	ND (0.18)	-	-	-
2,4-Dichlorophenol	mg/kg	2100	-	ND (0.18)	-	-	-
2,4-Dimethylphenol	mg/kg	14000	-	ND (0.18)	-	-	-
2,4-Dinitrophenol 4,6-Dinitro-o-cresol	mg/kg mg/kg	1400 68	-	ND (0.18) ND (0.18)	-	-	-
2-Methylphenol	mg/kg	3400	-	ND (0.070)	-	-	-
3&4-Methylphenol	mg/kg	-	-	ND (0.070)	-	-	-
2-Nitrophenol 4-Nitrophenol	mg/kg	-	-	ND (0.18) ND (0.35)	-	-	-
Pentachlorophenol	mg/kg mg/kg	10	-	ND (0.33)	-	-	-
Phenol	mg/kg	210000	-	ND (0.070)	-	-	-
2,3,4,6-Tetrachlorophenol	mg/kg		-	ND (0.18)	-	-	-
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	mg/kg mg/kg	68000 74	-	ND (0.18) ND (0.18)	-	-	-
Acenaphthene	mg/kg	37000		ND (0.035)	_	-	
Acenaphthylene	mg/kg	300000	-	ND (0.035)	-	-	-
Acetophenone	mg/kg	5	-	ND (0.18)	-	-	-
Anthracene Atrazine	mg/kg mg/kg	30000 2400	-	ND (0.035) ND (0.070)	-	-	-
Benzo(a)anthracene	mg/kg	2400	-	ND (0.070) ND (0.035)	-	-	-
Benzo(a)pyrene	mg/kg	0.2	-	0.0202 J	-	-	-
Benzo(b)fluoranthene	mg/kg	2	-	0.0194 J	-	-	-
Benzo(g,h,i)perylene Benzo(k)fluoranthene	mg/kg mg/kg	30000 23	-	0.0196 J ND (0.035)	-	-	-
4-Bromophenyl phenyl ether	mg/kg	-	-	ND (0.033)	-	-	-
Butyl benzyl phthalate	mg/kg	14000	-	ND (0.070)	-	-	-
1,1'-Biphenyl	mg/kg	34000	-	ND (0.070)	-	-	-
Benzaldehyde	mg/kg	68000	-	ND (0.18)	-	-	-
2-Chloronaphthalene 4-Chloroaniline	mg/kg mg/kg	-	-	ND (0.070) ND (0.18)	-	-	-
Carbazole	mg/kg	96	-	ND (0.070)	-	-	-
Caprolactam	mg/kg	340000	-	ND (0.070)	-	-	-
Chrysene	mg/kg	230	-	0.059	-	-	-
bis(2-Chloroethoxy)methane bis(2-Chloroethyl)ether	mg/kg mg/kg	2	-	ND (0.070) ND (0.070)	-		-
bis(2-Chloroisopropyl)ether	mg/kg	67	-	ND (0.070)	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	-	-	ND (0.070)	-	-	-
2,4-Dinitrotoluene	mg/kg	3	-	ND (0.035)	-	-	-
2,6-Dinitrotoluene 3,3'-Dichlorobenzidine	mg/kg mg/kg	3 4	-	ND (0.035) ND (0.070)	-	-	-
1,4-Dioxane	mg/kg	-	-	ND (0.076)	-	-	-
Dibenzo(a,h)anthracene	mg/kg	0.2	-	ND (0.035)	-	-	-
Dibenzofuran	mg/kg	-	-	ND (0.070)	-	-	-
Di-n-butyl phthalate Di-n-octyl phthalate	mg/kg mg/kg	68000	-	ND (0.070) ND (0.070)	-	-	-
Diethyl phthalate	mg/kg	27000 550000	-	ND (0.070)	-	-	-
Dimethyl phthalate	mg/kg	-	-	ND (0.070)	-	-	-
bis(2-Ethylhexyl)phthalate	mg/kg	140	-	ND (0.070)	-	-	-
Fluoranthene Fluorene	mg/kg	24000 24000	-	0.0165 J	-	-	-
Hexachlorobenzene	mg/kg mg/kg	24000	-	ND (0.035) ND (0.070)	-		-
Hexachlorobutadiene	mg/kg	25	-	ND (0.035)	-	-	-
Hexachlorocyclopentadiene	mg/kg	110	-	ND (0.35)	-	-	-
Hexachloroethane	mg/kg	140	-	ND (0.18)	-	-	-
Indeno(1,2,3-cd)pyrene Isophorone	mg/kg mg/kg	2000	-	ND (0.035) ND (0.070)	-	-	-
2-Methylnaphthalene	mg/kg	2400	-	ND (0.070)	-	-	-
2-Nitroaniline	mg/kg	23000	-	ND (0.18)	-	-	-
3-Nitroaniline	mg/kg	-	-	ND (0.18)	-	-	-
4-Nitroaniline Naphthalene	mg/kg mg/kg	- 17	-	ND (0.18) ND (0.035)	-	-	-
Nitrobenzene	mg/kg	340	-	ND (0.035)	-	-	-
N-Nitroso-di-n-propylamine	mg/kg	0.3	-	ND (0.070)			
N-Nitrosodiphenylamine	mg/kg	390	-	ND (0.18)	-	-	-
Phenanthrene Pyrene	mg/kg	300000 18000	-	0.0746 0.0424	-	-	-
Pyrene 1,2,4,5-Tetrachlorobenzene	mg/kg mg/kg	18000	-	0.0424 ND (0.18)	-	-	-
Hexachlorobutadiene	mg/kg	25	-	ND (0.012)	-	-	-
Hexachlorocyclopentadiene	mg/kg	110	-	ND (0.013)	-	-	-
Hexachloroethane	mg/kg	140	-	ND (0.018)	-	-	-
Isophorone	mg/kg	2000	-	ND (0.0060)	-	-	-
2-Methylnaphthalene	mg/kg	2400	-	ND (0.0081)	-	-	-
2-Nitroaniline	mg/kg	23000	-	ND (0.016)	-	-	-
3-Nitroaniline	mg/kg	-	-	ND (0.012)	-	-	-
4-Nitroaniline	mg/kg	-	-	ND (0.0097)	-	-	-
Nitrobenzene	mg/kg	340	-	ND (0.014)	-	-	-
N-Nitroso-di-n-propylamine	mg/kg	0.3	-	ND (0.0098)	-	-	-
p. op ylanimo	59				t	l	1
N-Nitrosodiphenylamine	mg/kg	390	-	ND (0.0084)	-	-	-

Client Sample ID:		NJ Non-	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-2
Lab Sample ID:		Residential Direct Contact	JB98904-1	JB98904-1R	JB98904-1T	JB98904-1TU	JB98904-2
Date Sampled:		Soil	7/9/2015	7/9/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil	Soil
Depth:			2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.0-2.5 ft
GC/MS Semi-volatile TIC							
Total TIC, Semi-Volatile	mg/kg	-	-	4.21 J	-	-	-
Total Alkanes	mg/kg	-	-	6.38 J	-	-	-
GC Semi-volatiles (NJDEP I	EPH)						
C10-C12 Aromatics	mg/kg	-	ND (0.14)	-	-	-	ND (0.13)
C12-C16 Aromatics	mg/kg	-	ND (0.22)	-	-	-	ND (0.21)
C16-C21 Aromatics	mg/kg	-	26.8	-	-	-	24
C21-C36 Aromatics	mg/kg	-	125	-	-	-	66.5
Total Aromatics	mg/kg	-	152	-	-	-	90.5
C9-C12 Aliphatics	mg/kg	-	ND (0.13)	-	-	-	ND (0.12)
C12-C16 Aliphatics	mg/kg	-	30.8	-	-	-	22.5
C16-C21 Aliphatics	mg/kg	-	55.4	-	-	-	35.1
C21-C40 Aliphatics	mg/kg	-	203	-	-	-	59.1
Total Aliphatics	mg/kg	-	290	-	-	-	117
Total EPH	mg/kg	-	442	-	-	-	207
GC Semi-volatiles (SW846 8	3082A)						
Aroclor 1016	mg/kg	1	-	ND (0.012)	_	_	-
Aroclor 1221	mg/kg	1	-	ND (0.021)	-	-	-
Aroclor 1232	mg/kg	1	-	ND (0.012)	-	-	-
Aroclor 1242	mg/kg	1	-	ND (0.017)	-	-	-
Aroclor 1248	mg/kg	1	-	ND (0.011)	-	-	-
Aroclor 1254	mg/kg	1	-	ND (0.016)	-	-	-
Aroclor 1260	mg/kg	1	-	ND (0.015)	-	-	-
Aroclor 1268	mg/kg	1	-	ND (0.011)	-	-	-
Aroclor 1262	mg/kg	1	-	ND (0.010)	-	-	-

Client Sample ID:		NJ Non- Residential	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-1	DSQC-SS-2
Lab Sample ID:		Direct Contact	JB98904-1	JB98904-1R	JB98904-1T	JB98904-1TU	JB98904-2
Date Sampled:		Soil	7/9/2015	7/9/2015	7/9/2015	7/9/2015	7/9/2015
Matrix:			Soil	Soil	Soil	Soil	Soil
Depth:			2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.5-3.0 ft	2.0-2.5 ft
Metals Analysis							
Aluminum	mg/kg	NA	-	12700	-	-	-
Antimony	mg/kg	450	-	<2.4	-	-	-
Arsenic	mg/kg	19	-	8	-	-	-
Barium	mg/kg	59000	-	89.7	-	-	-
Beryllium	mg/kg	140	-	0.79	-	-	-
Cadmium	mg/kg	78	-	<0.60	-	-	-
Calcium	mg/kg	-	-	1250	-	-	-
Chromium	mg/kg	-	-	23.7	-	-	-
Chromium, Hexavalent	mg/kg	-	-	-	<0.47	<0.47	-
Cobalt	mg/kg	590	-	9.7	-	-	-
Copper	mg/kg	45000	-	25.3	-	-	-
Iron	mg/kg	-	-	23700	-	-	-
Lead	mg/kg	800	-	26.2	-	-	-
Magnesium	mg/kg	-	-	4050	-	-	-
Manganese	mg/kg	5900	-	343	-	-	-
Mercury	mg/kg	65	-	< 0.036	-	-	-
Nickel	mg/kg	23000	-	21.9	-	-	-
Potassium	mg/kg	-	-	1860	-	-	-
Selenium	mg/kg	5700	-	<2.4	-	-	-
Silver	mg/kg	5700	-	<0.60	-	-	-
Sodium	mg/kg	-	-	<1200	-	-	-
Thallium	mg/kg	79	-	<1.2	-	-	-
Vanadium	mg/kg	1100	-	31.9	-	-	-
Zinc	mg/kg	110000	-	58	-	-	-
General Chemistry							
Iron, Ferrous	%	-	-	-	-	0.63 °	-
Redox Potential Vs H2	mv	-	-	-	526	-	-
Solids, Percent	%	-	85.5	-	-	-	88.3
Sulfide Screen		-	-	-	-	NEGATIVE d	-
Total Organic Carbon	mg/kg	-	-	-	-	7160	-
pH	su	-	-	-	6.06	-	-

All results in mg/kg unless otherwise noted.
mg/kg milligrams per kilogram

J Estimated Value

NS Not Sampled

ND Not Detected

NA Not Analyzed

() Method Detection Limit

B Compound Found in Blank

** Health based standard defaults to soil saturation limit

b Result is from 2nd run

Result is from 2nd run

Exceeds NJDEP Non-Residential Soil Remediation Standard

Client Sample ID:		NJ Non-	BA-SS-1	BA-SS-1	BA-SS-2	BA-SS-2	BA-SS-3	BA-SS-3	BA-SS-4	BA-SS-4
Lab Sample ID:		Residential Direct	JB99429-1	JB99429-1T	JB99248-8	JB99248-8R	JB99248-9	JB99248-9U	JB99248-10	JB99248-10U
Date Sampled:		Contact Soil	7/16/2015	7/16/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft						
GC/MS Volatiles (SW846 8260C	-)									
Acetone	mg/kg	NA	0.0044 J	_	0.0062 J		ND (0.0022)	_	0.0651	_
Benzene	mg/kg	5	ND (0.00013)	_	ND (0.00014)	_	ND (0.00013)		ND (0.00014)	_
Bromochloromethane	mg/kg	-	ND (0.00030)	-	ND (0.00033)	-	ND (0.00031)	-	ND (0.00032)	-
Bromodichloromethane	mg/kg	3	ND (0.00015)	-	ND (0.00016)	_	ND (0.00016)	_	ND (0.00016)	_
Bromoform	mg/kg	280	ND (0.00023)	-	ND (0.00025)	_	ND (0.00024)	-	ND (0.00024)	-
Bromomethane	mg/kg	59	ND (0.00036)	-	ND (0.00038)	-	ND (0.00036)	_	ND (0.00038)	-
2-Butanone (MEK)	mg/kg	44000	ND (0.0019)	-	ND (0.0020)	_	ND (0.0019)	_	ND (0.0020)	_
Carbon disulfide	mg/kg	110000	ND (0.00022)	-	ND (0.00024)	_	ND (0.00023)	_	0.00072 J	_
Carbon tetrachloride	mg/kg	2	ND (0.00023)	-	ND (0.00024)	-	ND (0.00023)	-	ND (0.00024)	-
Chlorobenzene	mg/kg	7400	ND (0.00015)	-	ND (0.00016)	-	ND (0.00015)	-	ND (0.00016)	-
Chloroethane	mg/kg	1100	ND (0.00047)	-	ND (0.00051)	-	ND (0.00048)	-	ND (0.00050)	-
2-Chloroethyl vinyl ether	mg/kg	-	- /	-	- '	-	- '	-	- '	-
Chloroform	mg/kg	2	ND (0.00015)	-	ND (0.00016)	-	ND (0.00015)	-	ND (0.00015)	-
Chloromethane	mg/kg	12	ND (0.00026)	-	ND (0.00028)	-	ND (0.00026)	-	ND (0.00027)	-
Cyclohexane	mg/kg	-	ND (0.00031)	-	ND (0.00033)	-	ND (0.00032)	-	ND (0.00033)	-
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.00053)	-	ND (0.00057)	-	ND (0.00054)	-	ND (0.00056)	-
Dibromochloromethane	mg/kg	8	ND (0.00020)	-	ND (0.00022)	-	ND (0.00020)	-	ND (0.00021)	-
1,2-Dibromoethane	mg/kg	0.04	ND (0.00013)	-	ND (0.00014)	-	ND (0.00013)	-	ND (0.00014)	-
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00012)	-	ND (0.00013)	-	ND (0.00012)	-	ND (0.00013)	-
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00015)	-	ND (0.00017)	-	ND (0.00016)	-	ND (0.00016)	-
1,4-Dichlorobenzene	mg/kg	13	ND (0.00022)	-	ND (0.00024)	-	ND (0.00022)	-	ND (0.00023)	-
Dichlorodifluoromethane	mg/kg	230000	ND (0.00036)	-	ND (0.00038)	-	ND (0.00036)	-	ND (0.00037)	-
1,1-Dichloroethane	mg/kg	24	ND (0.00014)	-	ND (0.00015)	-	ND (0.00014)	-	ND (0.00015)	-
1,2-Dichloroethane	mg/kg	3	ND (0.00013)	-	ND (0.00014)	-	ND (0.00013)	-	ND (0.00014)	-
1,1-Dichloroethene	mg/kg	150	ND (0.00058)	-	ND (0.00063)	-	ND (0.00059)	-	ND (0.00061)	-
cis-1,2-Dichloroethene	mg/kg	560	ND (0.00077)	-	ND (0.00082)	-	ND (0.00078)	-	ND (0.00080)	-
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00058)	-	ND (0.00063)	-	ND (0.00059)	-	ND (0.00061)	-
1,2-Dichloropropane	mg/kg	5	ND (0.00023)	-	ND (0.00025)	-	ND (0.00024)	-	ND (0.00025)	-
cis-1,3-Dichloropropene	mg/kg	7	ND (0.00012)	-						
trans-1,3-Dichloropropene	mg/kg	7	ND (0.00017)	-	ND (0.00019)	-	ND (0.00018)	-	ND (0.00018)	-
Ethylbenzene	mg/kg	110000	ND (0.00016)	-	ND (0.00017)	-	ND (0.00016)	-	ND (0.00017)	-
Freon 113	mg/kg	-	ND (0.00044)	-	ND (0.00047)	-	ND (0.00045)	-	ND (0.00046)	-
2-Hexanone	mg/kg	-	ND (0.0013)	-	ND (0.0014)	-	ND (0.0013)	-	ND (0.0014)	-
Isopropylbenzene	mg/kg	-	ND (0.00010)	-	ND (0.00011)	-	ND (0.00011)	-	ND (0.00011)	-
Methyl Acetate	mg/kg	NA	ND (0.00085)	ı	ND (0.00091)	-	ND (0.00086)	-	ND (0.00089)	-
Methylcyclohexane	mg/kg	•	ND (0.00022)	i	ND (0.00024)	-	ND (0.00023)		ND (0.00023)	-
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00015)	i	ND (0.00016)	-	ND (0.00015)	-	ND (0.00016)	-
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.00045)	-	ND (0.00048)	-	ND (0.00046)	-	ND (0.00047)	-
Methylene chloride	mg/kg	97	ND (0.00097)	ı	ND (0.0010)	-	ND (0.00098)	-	ND (0.0010)	-
Styrene	mg/kg	260	ND (0.00018)	•	ND (0.00019)	-	ND (0.00018)	-	ND (0.00018)	-
Tert Butyl Alcohol	mg/kg	11000	ND (0.0026)	1	ND (0.0028)	-	ND (0.0027)	-	ND (0.0028)	-
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.00017)	•	ND (0.00018)	-	ND (0.00017)	-	ND (0.00018)	-
Tetrachloroethene	mg/kg	5	ND (0.00030)	-	0.0025	-	ND (0.00030)	-	ND (0.00031)	-
Toluene	mg/kg	91000	ND (0.00020)	-	0.0076	-	0.0029	-	0.0075	-
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.00017)	-	ND (0.00019)	-	ND (0.00018)	-	ND (0.00018)	-
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.00017)	-	ND (0.00018)	-	ND (0.00017)	-	ND (0.00017)	-
1,1,1-Trichloroethane	mg/kg	4200	ND (0.00015)	-	ND (0.00016)	-	ND (0.00015)	-	ND (0.00015)	-
1,1,2-Trichloroethane	mg/kg	6	ND (0.00014)	-	ND (0.00016)	-	ND (0.00015)	-	ND (0.00015)	-
Trichloroethene	mg/kg	20	ND (0.00014)	-	ND (0.00016)	-	ND (0.00015)	-	ND (0.00015)	-
Trichlorofluoromethane	mg/kg	340000	ND (0.00024)	-	ND (0.00026)	-	ND (0.00025)	-	ND (0.00026)	-
Vinyl chloride	mg/kg	2	ND (0.00019)	-	ND (0.00021)	-	ND (0.00020)	-	ND (0.00020)	-
m,p-Xylene	mg/kg	170000	ND (0.00035)	-	ND (0.00037)	-	ND (0.00035)	-	ND (0.00036)	-
o-Xylene	mg/kg	170000	ND (0.00027)	-	ND (0.00029)	-	ND (0.00027)	-	ND (0.00028)	-
Xylene (total)	mg/kg	170000	ND (0.00027)	-	ND (0.00029)	-	ND (0.00027)	-	ND (0.00028)	-
GC/MS Volatile TIC										
Total TIC, Volatile	mg/kg	-	0	-	0	-	0	-	0	-
Total Alkanes	mg/kg	-	0	_	0	_	0	_	0	1

Client Sample ID:		NJ Non-	BA-SS-1	BA-SS-1	BA-SS-2	BA-SS-2	BA-SS-3	BA-SS-3	BA-SS-4	BA-SS-4
Lab Sample ID:		Residential Direct	JB99429-1	JB99429-1T	JB99248-8	JB99248-8R	JB99248-9	JB99248-9U	JB99248-10	JB99248-10U
Date Sampled:		Contact Son	7/16/2015	7/16/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft						
GC/MS Semi-volatiles (SW846	8270D)									
2-Chlorophenol	mg/kg	2200	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
1-Chloro-3-methyl phenol	mg/kg	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
2,4-Dichlorophenol	mg/kg	2100	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
2,4-Dimethylphenol 2,4-Dinitrophenol	mg/kg mg/kg	14000 1400	ND (0.18) ND (0.18)	-	ND (0.18) ND (0.18)	-	ND (0.18) ND (0.18)	-	ND (0.19) ND (0.19)	-
1,6-Dinitro-o-cresol	mg/kg	68	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
2-Methylphenol	mg/kg	3400	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
3&4-Methylphenol	mg/kg	-	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
2-Nitrophenol	mg/kg	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
I-Nitrophenol Pentachlorophenol	mg/kg mg/kg	- 10	ND (0.36) ND (0.18)	-	ND (0.37) ND (0.18)	-	ND (0.37) ND (0.18)	-	ND (0.38) ND (0.19)	-
Phenol	mg/kg	210000	ND (0.072)	-	ND (0.13)	-	ND (0.18)	-	ND (0.19)	-
2,3,4,6-Tetrachlorophenol	mg/kg	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
2,4,5-Trichlorophenol	mg/kg	68000	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
2,4,6-Trichlorophenol	mg/kg	74	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
Acenaphthene Acenaphthylene	mg/kg mg/kg	37000 300000	ND (0.036) ND (0.036)	-	ND (0.037) ND (0.037)	-	ND (0.037) ND (0.037)	-	ND (0.038) ND (0.038)	-
Acetophenone	mg/kg	5	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.036)	-
Anthracene	mg/kg	30000	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
Atrazine	mg/kg	2400	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
Benzo(a)anthracene	mg/kg	2	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
Benzo(a)pyrene	mg/kg	0.2	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	ND (0.036) ND (0.036)	-	ND (0.037) ND (0.037)	-	ND (0.037) ND (0.037)	-	ND (0.038) ND (0.038)	-
Benzo(k)fluoranthene	mg/kg	23	ND (0.036)		ND (0.037)		ND (0.037)	-	ND (0.038)	-
I-Bromophenyl phenyl ether	mg/kg	-	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
Butyl benzyl phthalate	mg/kg	14000	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
1,1'-Biphenyl	mg/kg	34000	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
Benzaldehyde	mg/kg	68000	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
2-Chloronaphthalene I-Chloroaniline	mg/kg mg/kg	-	ND (0.072) ND (0.18)	-	ND (0.073) ND (0.18)	-	ND (0.074) ND (0.18)	-	ND (0.075) ND (0.19)	-
Carbazole	mg/kg	96	ND (0.072)	_	ND (0.073)	_	ND (0.074)	_	ND (0.075)	-
Caprolactam	mg/kg	340000	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
Chrysene	mg/kg	230	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
ois(2-Chloroethoxy)methane	mg/kg	-	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
ois(2-Chloroethyl)ether	mg/kg	2 67	ND (0.072) ND (0.072)	-	ND (0.073) ND (0.073)	-	ND (0.074) ND (0.074)	-	ND (0.075) ND (0.075)	-
bis(2-Chloroisopropyl)ether 4-Chlorophenyl phenyl ether	mg/kg mg/kg	-	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
2.4-Dinitrotoluene	mg/kg	3	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
2,6-Dinitrotoluene	mg/kg	3	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
3,3'-Dichlorobenzidine	mg/kg	4	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
I,4-Dioxane	mg/kg	-	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
Dibenzo(a,h)anthracene Dibenzofuran	mg/kg	0.2	ND (0.036) ND (0.072)	-	ND (0.037) ND (0.073)	-	ND (0.037) ND (0.074)	-	ND (0.038)	-
Di-n-butyl phthalate	mg/kg mg/kg	68000	ND (0.072)	-	ND (0.073)	-	ND (0.074) ND (0.074)	-	ND (0.075) ND (0.075)	-
Di-n-octyl phthalate	mg/kg	27000	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
Diethyl phthalate	mg/kg	550000	ND (0.072)	<u>-</u>	ND (0.073)	<u>-</u>	ND (0.074)	-	ND (0.075)	
Dimethyl phthalate	mg/kg	-	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
pis(2-Ethylhexyl)phthalate	mg/kg	140	ND (0.072)	-	0.339	-	ND (0.074)	-	ND (0.075)	-
Fluoranthene Fluorene	mg/kg mg/kg	24000 24000	ND (0.036) ND (0.036)	-	ND (0.037) ND (0.037)	-	ND (0.037) ND (0.037)	-	ND (0.038) ND (0.038)	-
-ruorene Hexachlorobenzene	mg/kg	1	ND (0.036)	-	ND (0.037)	-	ND (0.037) ND (0.074)	-	ND (0.038)	-
Hexachlorobutadiene	mg/kg	25	ND (0.072)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
Hexachlorocyclopentadiene	mg/kg	110	ND (0.36)	-	ND (0.37)	-	ND (0.37)	-	ND (0.38)	-
lexachloroethane	mg/kg	140	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
ndeno(1,2,3-cd)pyrene	mg/kg	2	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
sophorone 2-Methylnaphthalene	mg/kg mg/kg	2000 2400	ND (0.072) ND (0.072)	-	ND (0.073) ND (0.073)	-	ND (0.074) 0.0213 J	-	ND (0.075) ND (0.075)	-
!-Nitroaniline	mg/kg	23000	ND (0.072)	-	ND (0.073)	-	ND (0.18)	-	ND (0.073)	-
3-Nitroaniline	mg/kg	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
-Nitroaniline	mg/kg	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
laphthalene	mg/kg	17	ND (0.036)	-	0.0166 J	-	0.0166 J	-	ND (0.038)	-
litrobenzene	mg/kg	340	ND (0.072)	-	ND (0.073)	-	ND (0.074)	-	ND (0.075)	-
I-Nitroso-di-n-propylamine I-Nitrosodiphenylamine	mg/kg mg/kg	0.3 390	ND (0.072) ND (0.18)	-	ND (0.073) ND (0.18)	-	ND (0.074) ND (0.18)	-	ND (0.075) ND (0.19)	-
Phenanthrene	mg/kg	300000	ND (0.036)	-	ND (0.18)	-	0.0234 J	-	ND (0.19)	-
Pyrene	mg/kg	18000	ND (0.036)	-	ND (0.037)	-	ND (0.037)	-	ND (0.038)	-
,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.19)	-
GC/MS Semi-volatile TIC										
Total TIC, Semi-Volatile	mg/kg	-	0		0.41 J		0.61 J	-	2.19 J	
otal Alkanes	mg/kg	-	-	-	-	-	-	-	-	-
Ulai MikalieS	mg/kg	-			•		0	_	_	

Table 4-1 Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Analytical Results at AOC 96 - Boiler Area

Client Sample ID:		NJ Non- Residential Direct	BA-SS-1 JB99429-1	BA-SS-1 JB99429-1T	BA-SS-2 JB99248-8	BA-SS-2 JB99248-8R	BA-SS-3 JB99248-9	BA-SS-3 JB99248-9U	BA-SS-4 JB99248-10	BA-SS-4 JB99248-10U
•		Contact Soil								
Date Sampled:		Contact 3011	7/16/2015	7/16/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015	7/15/2015
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft
GC Semi-volatiles (NJDEP EP	H)									
EPH (C9-C28)	mg/kg	-	-	_	-	ND (4.7)		T -	_	-
EPH (>C28-C40)	mg/kg	_	-	_	_	ND (4.7)	_	_	_	_
Total EPH (C9-C40)	mg/kg	-	-	_	-	ND (4.7)	_	_	_	-
10tal El 11 (03-040)	9/9			l)			l .	
Metals Analysis										
Aluminum	mg/kg	NA	6900	-	3950	-	3640	-	15700	-
Antimony	mg/kg	450	<2.2	-	<2.4	-	<2.2	-	<2.2	-
Arsenic	mg/kg	19	6.1	-	6.2	-	10.3	-	8	-
Barium	mg/kg	59000	22.5	-	25.1	-	23.4	-	47.6	-
Beryllium	mg/kg	140	0.48	-	0.31	-	0.39	-	0.59	-
Cadmium	mg/kg	78	<0.55	-	<0.60	-	<0.56	-	<0.56	-
Calcium	mg/kg	-	599	-	1900	-	<560	-	2030	-
Chromium	mg/kg	-	117	-	14.2	-	21.5	-	27.7	-
Chromium, Hexavalent	mg/kg	-	-	4.9	-	-	-	<0.45	-	<0.46
Cobalt	mg/kg	590	9.2	-	<6.0	-	<5.6	-	9.5	-
Copper	mg/kg	45000	7	-	17	-	18.6	-	30.3	-
Iron	mg/kg	-	23200	-	15700	-	22600	-	35500	-
Lead	mg/kg	800	8.2	-	14.6	-	15.8	-	13.6	-
Magnesium	mg/kg	-	3720	-	1540	-	1340	-	5410	-
Manganese	mg/kg	5900	146	-	83.9	-	121	-	306	-
Mercury	mg/kg	65	<0.036	-	0.056	-	0.036	-	<0.034	-
Nickel	mg/kg	23000	19.1	-	9.6	-	9.8	-	22.5	-
Potassium	mg/kg	-	1490	-	<1200	-	<1100	-	2160	-
Selenium	mg/kg	5700	<2.2	-	<2.4	-	<2.2	-	<2.2	-
Silver	mg/kg	5700	<0.55	-	<0.60	-	<0.56	-	<0.56	-
Sodium	mg/kg	-	<1100	-	<1200	-	<1100	-	<1100	-
Sulfur	mg/kg	-	-	-	-	-	-	-	-	-
Thallium	mg/kg	79	<1.1	-	<1.2	-	<1.1	-	<1.1	-
Vanadium	mg/kg	1100	18.9	-	19.8	-	26.6	-	36.8	-
Zinc	mg/kg	110000	53.5	-	36.5	-	42.2	-	55.6	-
Conoral Chamistre										
General Chemistry										
Nitrogen, Ammonia	mg/kg	-	<2.4	-	<2.6	-	<2.5	-	7.2	-
Redox Potential Vs H2	mv	-	•	566	-	-	-	537	-	544
Solids, Percent	%	-	89.2	-	84.5	-	89.5	-	86.5	-
Sulfide, Neutral Extraction	mg/kg	-	<4.4	-	<4.6	-	<4.4	-	<4.5	-
pH	su	-	8.4	8.36	10.3	-	8.86	8.51	6.86	6.71

All results in mg/kg unless	otherwise noted.
mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
а	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Client Sample ID:		NJ Non-	API-SS-11/12 JC1987-4	JC1987-4R	API-SS-11/12A JC2306-5
Date Sample ID:		Residential	8/20/2015	8/20/2015	8/24/2015
Matrix:		Direct Contact	Soil	Soil	Soil
Depth:		Soil	1.5-2.0 ft	1.5-2.0 ft	26.0-26.5 ft
			110 210 10	2.0	2010 2010 11
GC/MS Volatiles (SW846 8260	C)				
Acetone	mg/kg	NA	ND (0.0094)	-	ND (0.012)
Benzene	mg/kg	5	ND (0.00047)	-	ND (0.00060)
Bromochloromethane	mg/kg	-	ND (0.0047)	-	ND (0.0060)
Bromodichloromethane	mg/kg	3	ND (0.0019)		ND (0.0024)
Bromoform	mg/kg	280	ND (0.0047)	-	ND (0.0060)
Bromomethane	mg/kg	59	ND (0.0047)	-	ND (0.0060)
2-Butanone (MEK)	mg/kg	44000	ND (0.0094)	-	ND (0.012)
Carbon disulfide	mg/kg	110000	ND (0.0019)	-	ND (0.0024)
Carbon tetrachloride	mg/kg	2	ND (0.0019)	-	ND (0.0024)
Chlorobenzene	mg/kg	7400	ND (0.0019)	-	ND (0.0024)
Chloroethane	mg/kg	1100	ND (0.0047)	-	ND (0.0060)
Chloroform	mg/kg	2	ND (0.0019)	-	ND (0.0024)
Chloromethane	mg/kg	12	ND (0.0047)	-	ND (0.0060)
Cyclohexane	mg/kg	-	ND (0.0019)	-	ND (0.0024)
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND (0.0019)	-	ND (0.0024)
Dibromochloromethane	mg/kg	8	ND (0.0019)	-	ND (0.0024)
1,2-Dibromoethane	mg/kg	0.04	ND (0.00094)	-	ND (0.0012)
1,2-Dichlorobenzene	mg/kg	59000	ND (0.00094)	-	ND (0.0012)
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00094)	-	ND (0.0012)
1,4-Dichlorobenzene	mg/kg	13	ND (0.00094)	-	ND (0.0012)
Dichlorodifluoromethane	mg/kg	230000	ND (0.0047)	-	ND (0.0060)
1,1-Dichloroethane	mg/kg	24	ND (0.00094)	-	ND (0.0012)
1,2-Dichloroethane	mg/kg	3	ND (0.00094)	-	ND (0.0012)
1,1-Dichloroethene	mg/kg	150	ND (0.00094)	-	ND (0.0012)
cis-1,2-Dichloroethene	mg/kg	560	0.001	-	ND (0.0012)
rans-1,2-Dichloroethene	mg/kg	720	ND (0.00094)	-	ND (0.0012)
1,2-Dichloropropane	mg/kg	5	ND (0.0019)	-	ND (0.0024)
cis-1,3-Dichloropropene	mg/kg	7	ND (0.0019)	-	ND (0.0024)
rans-1,3-Dichloropropene	mg/kg	7	ND (0.0019)	-	ND (0.0024)
Ethylbenzene	mg/kg	110000	0.00018 J	-	ND (0.0012)
Freon 113	mg/kg	-	ND (0.0047)	-	ND (0.0060)
2-Hexanone	mg/kg	-	ND (0.0047)	-	ND (0.0060)
Isopropylbenzene	mg/kg	-	ND (0.0019)	-	ND (0.0024)
Methyl Acetate	mg/kg	NA	ND (0.0047)	-	ND (0.0060)
Methylcyclohexane	mg/kg	-	ND (0.0019)	-	ND (0.0024)
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00094)	-	0.00038 J
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND (0.0047)	-	ND (0.0060)
Methylene chloride	mg/kg	97	ND (0.0047)	-	ND (0.0060)
Styrene	mg/kg	260	ND (0.0019)	-	ND (0.0024)
Tert Butyl Alcohol	mg/kg	11000	ND (0.023)	-	ND (0.030)
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.0019)	-	ND (0.0024)
Tetrachloroethene	mg/kg	5	0.00079 J	-	ND (0.0024)
Toluene	mg/kg	91000	ND (0.00094)	-	ND (0.0012)
1,2,3-Trichlorobenzene	mg/kg	-	ND (0.0047)	-	ND (0.0060)
1,2,4-Trichlorobenzene	mg/kg	820	ND (0.0047)	-	ND (0.0060)
I,1,1-Trichloroethane	mg/kg	4200	ND (0.0019)	-	ND (0.0024)
1,1,2-Trichloroethane	mg/kg	6	ND (0.0019)	-	ND (0.0024)
Frichloroethene	mg/kg	20	0.00043 J	-	ND (0.0012)
Frichlorofluoromethane	mg/kg	340000	ND (0.0047)	-	ND (0.0060)
/inyl chloride	mg/kg	2	ND (0.0019)	-	ND (0.0024)
n,p-Xylene	mg/kg	170000	ND (0.00094)	-	ND (0.0012)
o-Xylene	mg/kg	170000	ND (0.00094)	-	ND (0.0012)
(ylene (total)	mg/kg	170000	ND (0.00094)	-	ND (0.0012)
	, , ,		,,		(0.00.12)
GC/MS Volatile TIC					
otal TIC, Volatile	mg/kg	-	0	-	0
Total Alkanes	mg/kg	-	0	-	0

Client Sample ID:		NJ Non-	API-SS-11/12		API-SS-11/12A
Lab Sample ID:		NJ Non- Residential	JC1987-4	JC1987-4R	JC2306-5
Date Sampled:		Direct Contact	8/20/2015	8/20/2015	8/24/2015
Matrix: Depth:		Soil	Soil 1.5-2.0 ft	Soil 1.5-2.0 ft	Soil 26.0-26.5 ft
Бериі.			1.5-2.0 10	1.5-2.0 10	20.0-20.3 11
GC/MS Semi-volatiles (SW846	8270D)				
Acenaphthene	mg/kg	37000	ND (0.036)	-	ND (0.038)
Acenaphthylene	mg/kg	300000	ND (0.036)	-	ND (0.038)
2-Chlorophenol	mg/kg	2200	ND (0.073)		ND (0.077)
Anthracene	mg/kg	30000	ND (0.036)	-	ND (0.038)
4-Chloro-3-methyl phenol	mg/kg	-	ND (0.18)	-	ND (0.038)
Benzo(a)anthracene	mg/kg	2	ND (0.036)	-	ND (0.19)
Benzo(a)pyrene	mg/kg	0.2	0.0147 J	-	ND (0.038)
2,4-Dichlorophenol	mg/kg	2100	ND (0.18) ND (0.036)	-	ND (0.19)
Benzo(b)fluoranthene 2,4-Dimethylphenol	mg/kg mg/kg	14000	ND (0.030)	-	ND (0.038) ND (0.19)
Benzo(g,h,i)perylene	mg/kg	30000	0.0203 J	-	ND (0.19)
2,4-Dinitrophenol	mg/kg	1400	ND (0.18)	_	ND (0.038)
Benzo(k)fluoranthene	mg/kg	23	ND (0.036)	-	ND (0.038)
Chrysene	mg/kg	230	0.0180 J	-	ND (0.19)
1,6-Dinitro-o-cresol	mg/kg	68	ND (0.18)	-	ND (0.038)
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.036)	-	ND (0.038)
luoranthene	mg/kg	24000	ND (0.036)	-	ND (0.038)
2-Methylphenol	mg/kg	3400	ND (0.073)	-	ND (0.077)
Fluorene	mg/kg	24000	ND (0.036)	-	ND (0.077)
8&4-Methylphenol	mg/kg	-	ND (0.073)	-	ND (0.038)
ndeno(1,2,3-cd)pyrene	mg/kg	2	ND (0.036)	-	ND (0.038)
2-Nitrophenol	mg/kg	-	ND (0.18)	-	ND (0.19)
1-Nitrophenol	mg/kg	17	ND (0.36)	-	ND (0.038)
Naphthalene Phenanthrene	mg/kg mg/kg	300000	ND (0.036) 0.0176 J	-	ND (0.38)
Pentachlorophenol	mg/kg	10	ND (0.18)	-	ND (0.19) ND (0.038)
Phenol	mg/kg	210000	ND (0.073)	_	ND (0.038)
Pyrene	mg/kg	18000	ND (0.036)	_	ND (0.077)
2,3,4,6-Tetrachlorophenol	mg/kg	-	ND (0.18)	-	ND (0.19)
2,4,5-Trichlorophenol	mg/kg	68000	ND (0.18)	-	ND (0.19)
2,4,6-Trichlorophenol	mg/kg	74	ND (0.18)	-	ND (0.19)
Acetophenone	mg/kg	5	ND (0.18)	-	ND (0.19)
Atrazine	mg/kg	2400	ND (0.073)		ND (0.077)
4-Bromophenyl phenyl ether	mg/kg	-	ND (0.073)	-	ND (0.077)
Butyl benzyl phthalate	mg/kg	14000	ND (0.073)	-	ND (0.077)
I,1'-Biphenyl	mg/kg	34000	ND (0.073)	-	ND (0.077)
Benzaldehyde	mg/kg	68000	ND (0.18)	-	ND (0.19)
2-Chloronaphthalene	mg/kg	-	ND (0.073)	-	ND (0.077)
4-Chloroaniline Carbazole	mg/kg mg/kg	96	ND (0.18) ND (0.073)	-	ND (0.19)
Caprolactam	mg/kg	340000	ND (0.073)	-	ND (0.077) ND (0.077)
ois(2-Chloroethoxy)methane	mg/kg	-	ND (0.073)	-	ND (0.077)
pis(2-Chloroethyl)ether	mg/kg	2	ND (0.073)	_	ND (0.077)
ois(2-Chloroisopropyl)ether	mg/kg	67	ND (0.073)	-	ND (0.077)
1-Chlorophenyl phenyl ether	mg/kg	-	ND (0.073)	-	ND (0.077)
2,4-Dinitrotoluene	mg/kg	3	ND (0.036)	-	ND (0.038)
2,6-Dinitrotoluene	mg/kg	3	ND (0.036)	-	ND (0.038)
3,3'-Dichlorobenzidine	mg/kg	4	ND (0.073)	-	ND (0.077)
I,4-Dioxane	mg/kg	-	ND (0.036)	-	ND (0.038)
Dibenzofuran	mg/kg	-	ND (0.073)	-	ND (0.077)
Di-n-butyl phthalate	mg/kg	68000	ND (0.073)	-	ND (0.077)
Di-n-octyl phthalate	mg/kg	27000	ND (0.073)	-	ND (0.077)
Diethyl phthalate	mg/kg	550000	ND (0.073) ND (0.073)	-	ND (0.077)
Dimethyl phthalate Dis(2-Ethylhexyl)phthalate	mg/kg mg/kg	140	0.0439 J	-	ND (0.077)
Hexachlorobenzene	mg/kg	140	ND (0.073)	-	ND (0.077) ND (0.077)
Hexachlorobutadiene	mg/kg	25	ND (0.075)	-	ND (0.038)
-lexachlorocyclopentadiene	mg/kg	110	ND (0.36)	-	ND (0.38)
Hexachloroethane	mg/kg	140	ND (0.18)	-	ND (0.19)
sophorone	mg/kg	2000	ND (0.073)	-	ND (0.077)
2-Methylnaphthalene	mg/kg	2400	0.0225 J	-	ND (0.077)
2-Nitroaniline	mg/kg	23000	ND (0.18)	-	ND (0.19)
3-Nitroaniline	mg/kg	-	ND (0.18)	-	ND (0.19)
1-Nitroaniline	mg/kg	-	ND (0.18)	-	ND (0.19)
Nitrobenzene	mg/kg	340	ND (0.073)	-	ND (0.077)
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND (0.073)	-	ND (0.077)
N-Nitrosodiphenylamine	mg/kg	390	ND (0.18)	-	ND (0.19)
,2,4,5-Tetrachlorobenzene	mg/kg	-	ND (0.18)	-	ND (0.19)
GC/MS Semi-volatile TIC					
	L				_
otal TIC, Semi-Volatile	mg/kg		4.11 J	-	0
Γotal Alkanes	mg/kg	-	0.43 J	-	0

Table 4-1 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 99 - Chemical Storage Adjacent to Cooling Water Tower

Client Sample ID:			API-SS-11/12	API-SS-11/12	API-SS-11/12A
		NJ Non-	JC1987-4	JC1987-4R	JC2306-5
Lab Sample ID:		Residential	8/20/2015	8/20/2015	8/24/2015
Date Sampled: Matrix:		Direct Contact	80il	6/20/2015 Soil	6/24/2015 Soil
Depth:		Soil	1.5-2.0 ft	1.5-2.0 ft	26.0-26.5 ft
Бериі.			1.5-2.0 10	1.5-2.0 11	26.0-26.5 11
Metals Analysis					
Aluminum	mg/kg	NA	11600	-	663
Antimony	mg/kg	450	ND (2.3)	-	ND (2.4)
Arsenic	mg/kg	19	6.5	-	ND (2.4)
Barium	mg/kg	59000	64.1	-	ND (24)
Beryllium	mg/kg	140	0.97	-	ND (0.24)
Cadmium	mg/kg	78	ND (0.58)	-	ND (0.61)
Calcium	mg/kg	-	3990	-	ND (610)
Chromium	mg/kg	-	33.3	-	3.7
Chromium, Hexavalent	mg/kg	-	-	0.61	-
Cobalt	mg/kg	590	11.8	-	ND (6.1)
Copper	mg/kg	45000	236	-	ND (3.0)
Iron	mg/kg	-	27400	-	2910
Lead	mg/kg	800	67.4	-	ND (2.4)
Magnesium	mg/kg	-	5270	-	ND (610)
Manganese	mg/kg	5900	495	-	8
Mercury	mg/kg	65	ND (0.034)	-	ND (0.036)
Nickel	mg/kg	23000	61.2	-	ND (4.9)
Potassium	mg/kg	-	1420	_	ND (1200)
Selenium	mg/kg	5700	ND (2.3)	_	ND (2.4)
Silver	mg/kg	5700	ND (0.58)	-	ND (0.61)
Sodium	mg/kg	-	ND (1200)	-	ND (1200)
Thallium	mg/kg	79	ND (1.2)	_	ND (1.2)
Vanadium	mg/kg	1100	56.9	_	6.6
Zinc	mg/kg	110000	230	-	ND (6.1)
General Chemistry	•				. ,
Nitrogen, Ammonia	mg/kg	-	ND (2.5)	-	ND (2.6)
Redox Potential Vs H2	mv	-	-	270	-
Solids, Percent	%	-	90.4	-	83.3
Sulfide, Neutral Extraction	mg/kg	-	ND (4.3)	-	ND (4.7)
рН	su	-	8.45	8.64	7.51
All results in mg/kg unless other					
mg/kg	_	ms per kilogram			
J		ted Value			
NS	Not Sai				
ND 	Not De				
NA	Not An	*			
()		Detection Limit			
В		und Found in Bla			
**		based standard d	efaults to soil sa	aturation limit	
b	Result	is from 2nd run			
а	Result	is from 2nd run			
	Exceed	ls NJDEP Non-Re	esidential Soil R	emediation Stan	dard

Table 4-1
Hess Corporation - Former Port Reading Complex
750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results - AOC-12 - Vacant Land (South)

Client Sample ID:			VLLD-SS-1 (3.5-4.0)	VLLD-SS-2 (3.5-4.0)	VLLD-SS-3 (4.5-5.0)		
Lab Sample ID:		NJ Non- Residential	JB74805-1	JB74805-2	JB74805-3		
Date Sampled:		Direct Contact Soil	8/22/2014	8/22/2014	8/22/2014		
Sample Depth:		Direct Contact Con	3.5-4.0	3.5-4.0	4.5-5.0		
Matrix:			Soil	Soil	Soil		
Volatile Organic Compounds							
voiatile Organic Compounds							
Acetone	mg/kg	-	ND	ND	ND		
Benzene	mg/kg	5	ND	ND	ND		
Bromochloromethane	mg/kg	-	ND	ND	ND		
Bromodichloromethane	mg/kg	3	ND	ND	ND		
Bromoform	mg/kg	280	ND	ND	ND		
Bromomethane	mg/kg	59	ND	ND	ND		
2-Butanone (MEK)	mg/kg	44000	ND	ND	ND		
Carbon disulfide	mg/kg	110000	ND	ND	ND		
Carbon tetrachloride	mg/kg	2	ND	ND	ND		
Chlorobenzene	mg/kg	7400	ND	ND	ND		
Chloroethane	mg/kg	1100	ND	ND	ND		
Chloroform	mg/kg	2	ND	ND	ND		
Chloromethane	mg/kg	12	ND	ND	ND		
Cyclohexane	mg/kg	-	ND	ND	ND		
1,2-Dibromo-3-chloropropane	mg/kg	0.2	ND	ND	ND		
Dibromochloromethane	mg/kg	8	ND	ND	ND		
1,2-Dibromoethane	mg/kg	0.04	ND ND	ND	ND		
1,2-Dichlorobenzene	mg/kg	59000	ND	ND	ND		
1,3-Dichlorobenzene	mg/kg	59000	ND ND	ND ND	ND		
1,4-Dichlorobenzene	mg/kg	13 230000	ND ND	ND ND	0.0898 J		
Dichlorodifluoromethane	mg/kg		ND ND	ND	ND		
1,1-Dichloroethane	mg/kg	24	ND ND	ND ND	ND ND		
1,2-Dichloroethane 1,1-Dichloroethene	mg/kg	3 150	ND ND	ND ND	ND ND		
cis-1,2-Dichloroethene	mg/kg mg/kg	560	ND ND	ND ND	ND ND		
trans-1,2-Dichloroethene	mg/kg	720	ND ND	ND ND	ND ND		
1,2-Dichloropropane	mg/kg	5	ND ND	ND ND	ND ND		
cis-1,3-Dichloropropene	mg/kg	7	ND ND	ND ND	ND ND		
trans-1,3-Dichloropropene	mg/kg	7	ND	ND	ND ND		
Ethylbenzene	mg/kg	110000	ND ND	ND ND	ND ND		
Freon 113	mg/kg	-	ND	ND	ND		
2-Hexanone	mg/kg	-	ND	ND	ND		
Isopropylbenzene	mg/kg	-	ND	ND	ND		
Methyl Acetate	mg/kg	-	ND	ND	0.232 J		
Methylcyclohexane	mg/kg	-	ND	ND	ND		
Methyl Tert Butyl Ether	mg/kg	320	ND	ND	ND		
4-Methyl-2-pentanone(MIBK)	mg/kg	-	ND	ND	ND		
Methylene chloride	mg/kg	97	ND	ND	ND		
Styrene	mg/kg	260	ND	ND	ND		
1,1,2,2-Tetrachloroethane	mg/kg	3	ND	ND	ND		
Tetrachloroethene	mg/kg	5	ND	ND	ND		
Toluene	mg/kg	91000	ND	ND	ND		
1,2,3-Trichlorobenzene	mg/kg	-	ND	ND	ND		
1,2,4-Trichlorobenzene	mg/kg	820	ND	ND	ND		
1,1,1-Trichloroethane	mg/kg	4200	ND	ND	ND		
1,1,2-Trichloroethane	mg/kg	6	ND ND	ND ND	ND ND		
Trichloroethene	mg/kg	20	ND ND	ND ND	ND ND		
Trichloroethene	mg/kg	20 340000	ND ND	ND ND	ND ND		
Trichlorofluoromethane	mg/kg		ND ND	ND ND	ND ND		
Vinyl chloride	mg/kg mg/kg	2 170000	ND ND	ND ND	ND ND		
m,p-Xylene		170000		ND ND	ND ND		
o-Xylene Xylene (total)	mg/kg	170000	ND ND	ND ND	ND ND		
Ayrene (total)	mg/kg	170000	IND	עא וועט	I ND		
Volatile Organic Tentatively Iden	tified Compo	ounds					
Total TIC, Volatile	mg/kg	-	0.82 J	0	9.72 J		
Total Alkanes	mg/kg	-	0.02.3	0	3.96 J		
	9,9		•		0.000		

Table 4-1
Hess Corporation - Former Port Reading Complex
750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results - AOC-12 - Vacant Land (South)

Client Sample ID:	ent Sample ID:		VLLD-SS-1 (3.5-4.0)	VLLD-SS-2 (3.5-4.0)		
Lab Sample ID:		NJ Non- Residential	JB74805-1	JB74805-2	JB74805-3	
Date Sampled:		Direct Contact Soil	8/22/2014	8/22/2014	8/22/2014	
Sample Depth:		Direct Contact 30ii	3.5-4.0	3.5-4.0	4.5-5.0	
Matrix:			Soil	Soil	Soil	
Semi-Volatile Organic Compound	S					
0.041		0000	ND	ND	ND	
2-Chlorophenol 4-Chloro-3-methyl phenol	mg/kg mg/kg	2200	ND ND	ND ND	ND ND	
2,4-Dichlorophenol	mg/kg	2100	ND ND	ND ND	ND ND	
2,4-Dimethylphenol	mg/kg	14000	ND ND	ND ND	ND ND	
2,4-Dinitrophenol	mg/kg	1400	ND	ND	ND	
4,6-Dinitro-o-cresol	mg/kg	68	ND	ND	ND	
2-Methylphenol	mg/kg	3400	ND	ND	ND	
3&4-Methylphenol	mg/kg	-	ND	ND	ND	
2-Nitrophenol	mg/kg	-	ND	ND	ND	
4-Nitrophenol	mg/kg	-	ND ND	ND ND	ND	
Pentachlorophenol Phenol	mg/kg	10	ND ND	ND ND	ND ND	
2,3,4,6-Tetrachlorophenol	mg/kg	210000	ND ND	ND ND	ND ND	
2,4,5-Trichlorophenol	mg/kg mg/kg	68000	ND ND	ND ND	ND ND	
2,4,6-Trichlorophenol	mg/kg	74	ND ND	ND ND	ND	
Acenaphthene	mg/kg	37000	ND	ND	ND	
Acenaphthylene	mg/kg	300000	ND	ND	0.152	
Acetophenone	mg/kg	5	ND	ND	ND	
Anthracene	mg/kg	30000	ND	ND	ND	
Atrazine	mg/kg	2400	ND ND	ND	ND 0.400	
Benzo(a)anthracene	mg/kg	2	0.0150 J	0.0144 J	0.496	
Benzo(a)pyrene	mg/kg	0.2	ND 0.0430. I	ND ND	0.467	
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	2 30000	0.0138 J ND	ND ND	0.516 0.293	
Benzo(k)fluoranthene	mg/kg	23	ND ND	ND ND	0.133	
4-Bromophenyl phenyl ether	mg/kg	-	ND ND	ND ND	ND	
Butyl benzyl phthalate	mg/kg	14000	ND	ND	ND	
1,1'-Biphenyl	mg/kg	34000	ND	ND	ND	
Benzaldehyde	mg/kg	68000	ND	ND	ND	
2-Chloronaphthalene	mg/kg	-	ND	ND	ND	
4-Chloroaniline	mg/kg	-	ND	ND	ND	
Carbazole	mg/kg	96	ND ND	ND ND	ND ND	
Caprolactam Chrysene	mg/kg mg/kg	340000 230	ND 0.0184 J	ND 0.0149 J	ND 0.687	
bis(2-Chloroethoxy)methane	mg/kg	-	ND	0.0149 3 ND	ND	
bis(2-Chloroethyl)ether	mg/kg	2	ND ND	ND ND	ND	
bis(2-Chloroisopropyl)ether	mg/kg	67	ND	ND	ND	
4-Chlorophenyl phenyl ether	mg/kg	-	ND	ND	ND	
2,4-Dinitrotoluene	mg/kg	3	ND	ND	ND	
2,6-Dinitrotoluene	mg/kg	3	ND	ND	ND	
3,3'-Dichlorobenzidine	mg/kg	4	ND	ND	ND	
1,4-Dioxane Dibenzo(a,h)anthracene	mg/kg mg/kg	0.2	ND ND	ND ND	ND 0.0705	
Dibenzofuran	mg/kg	-	ND ND	ND ND	0.0703 ND	
Di-n-butyl phthalate	mg/kg	68000	ND ND	ND ND	0.100 J	
Di-n-octyl phthalate	mg/kg	27000	ND	ND	ND	
Diethyl phthalate	mg/kg	550000	ND	ND	ND	
Dimethyl phthalate	mg/kg	-	ND	ND	ND	
bis(2-Ethylhexyl)phthalate	mg/kg	140	ND	ND ND	22.3	
Fluoranthene	mg/kg	24000	0.0204 J	ND ND	1.46	
Fluorene Hexachlorobenzene	mg/kg	24000	ND ND	ND ND	ND ND	
Hexachlorobenzene Hexachlorobutadiene	mg/kg mg/kg	25	ND ND	ND ND	ND ND	
Hexachlorocyclopentadiene	mg/kg	110	ND ND	ND ND	ND	
Hexachloroethane	mg/kg	140	ND	ND	ND	
Indeno(1,2,3-cd)pyrene	mg/kg	2	ND	ND	0.239	
Isophorone	mg/kg	2000	ND	ND	ND	
2-Methylnaphthalene	mg/kg	2400	ND	ND	ND	
2-Nitroaniline	mg/kg	23000	ND	ND ND	ND	
3-Nitroaniline 4-Nitroaniline	mg/kg	-	ND ND	ND ND	ND ND	
4-Nitroaniline Naphthalene	mg/kg	- 17	ND ND	ND ND	ND 0.0501 J	
Nitrobenzene	mg/kg mg/kg	340	ND ND	ND ND	0.0501 J ND	
N-Nitroso-di-n-propylamine	mg/kg	0.3	ND ND	ND ND	ND ND	
N-Nitrosodiphenylamine	mg/kg	390	ND ND	ND	ND	
Phenanthrene	mg/kg	300000	ND	ND	0.611	
Pyrene	mg/kg	18000	0.0189 J	0.0139 J	1.36	
1,2,4,5-Tetrachlorobenzene	mg/kg	-	ND	ND	ND	

Table 4-1
Hess Corporation - Former Port Reading Complex
750 Cliff Road, Port Reading, New Jersey
Summary of Soil Analytical Results - AOC-12 - Vacant Land (South)

Client Sample ID:			VLLD-SS-1 (3.5-4.0)	VLLD-SS-2 (3.5-4.0)	VLLD-SS-3 (4.5-5.0
Lab Sample ID:		NJ Non- Residential	JB74805-1	JB74805-2	JB74805-3
Date Sampled:		Direct Contact Soil	8/22/2014	8/22/2014	8/22/2014
Sample Depth:			3.5-4.0	3.5-4.0	4.5-5.0
Matrix:			Soil	Soil	Soil
Semi-Volatile Organic Tentatively	Identified C	Compounds			
otal TIC, Semi-Volatile	mg/kg	-	0	0.19 J	46.3 J
Total Alkanes	mg/kg	-	0	0	22.2 J
Pesticides and Herbicides					
resticiaes and herbiciaes					
Aldrin	mg/kg	0.2	ND	ND	ND
alpha-BHC	mg/kg	0.5	ND	ND	ND
peta-BHC	mg/kg	2	ND	ND ND	ND
delta-BHC	mg/kg	-	ND	ND ND	ND ND
gamma-BHC (Lindane) alpha-Chlordane	mg/kg	2	ND ND	ND ND	ND ND
gamma-Chlordane	mg/kg mg/kg	1	ND ND	ND ND	ND ND
Chlordane (alpha and gamma)	mg/kg	1	ND ND	ND ND	ND ND
Dieldrin	mg/kg	0.2	ND	ND	ND
I,4'-DDD	mg/kg	13	0.0018	ND	ND
I,4'-DDE	mg/kg	9	0.0046	ND	ND
1,4'-DDT	mg/kg	8	0.0025	ND	ND
Endrin	mg/kg	340	ND	ND	ND
Endosulfan sulfate	mg/kg	6800	ND	ND	ND
Endrin aldehyde	mg/kg	-	ND	ND	ND
Endosulfan-l	mg/kg	6800	ND	ND	ND
Endosulfan-II	mg/kg	6800	ND	ND	ND
Heptachlor	mg/kg	0.7	ND	ND	ND
Heptachlor epoxide	mg/kg	0.3	ND	ND	ND
Methoxychlor	mg/kg	5700	ND	ND	ND
Endrin ketone	mg/kg	-	ND	ND ND	ND
Toxaphene	mg/kg	3	ND	ND	ND
Polychlorinated Biphenyls					
Aroclor 1016	ma/ka	1	ND	ND	ND
Aroclor 1221	mg/kg	1	ND	ND	ND
Aroclor 1232	mg/kg	1	ND	ND	ND
Aroclor 1242	mg/kg	1	ND	ND	ND
Aroclor 1248	mg/kg	1	ND	ND	2.23
Aroclor 1254	mg/kg	1	ND	ND	0.716
Aroclor 1260	mg/kg	1	ND	ND	ND
Aroclor 1268	mg/kg	1	ND	ND	ND
Aroclor 1262	mg/kg	1	ND	ND	ND
Metal Compounds					
			2.122		
Aluminum	mg/kg	450	3490 ND	3730	16600
Antimony	mg/kg	450 19	ND 16.9	ND 7.0	4.7 92.1
Arsenic	mg/kg	59000	16.9 ND	7.8 ND	92.1 393
Barium Beryllium	mg/kg	140	0.79	0.56	1.7
Seryilium Cadmium	mg/kg mg/kg	78	0.79	0.56 ND	1.7
Calcium	mg/kg	-	ND	ND ND	6370
Chromium	mg/kg	-	69.1	21.4	245
Cobalt	mg/kg	590	ND	ND ND	14.2
Copper	mg/kg	45000	24.4	9	769
ron	mg/kg	-	34900	24900	42000
_ead	mg/kg	800	13.2	6.6	327
Magnesium	mg/kg	-	976	1830	5700
Manganese	mg/kg	5900	142	118	347
Mercury	mg/kg	65	0.093	ND	8.3
Nickel	mg/kg	23000	10.3	11.2	58.5
Potassium	mg/kg	-	ND	ND	2980
Selenium	mg/kg	5700	ND	ND	11.9
Silver	mg/kg	5700	ND	ND	6.2
Sodium	mg/kg	-	ND	ND	ND
Γhallium	mg/kg	79	ND	ND 17.0	ND
/anadium Zinc	mg/kg	1100	37.5	17.9	78.5
	mg/kg	110000	50.9	37.4	621
LITIC					
General Chemistry Cyanide	mg/kg	23000	ND	ND	0.71

mg/kg	milligrams per kilogram
J	Estimated Value
NS	Not Sampled
ND	Not Detected
NA	Not Analyzed
()	Method Detection Limit
В	Compound Found in Blank
**	Health based standard defaults to soil saturation limit
b	Result is from 2nd run
a	Result is from 2nd run
	Exceeds NJDEP Non-Residential Soil Remediation Standard

Table 4-59 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 107 - Drum Storage Compound

Client Sample ID:		NJ Non-	DCW-SS-1	DCW-SS-1	DCW-SS-2	DCW-SS-2	DCW-SS-2	DCW-SS-3	DCW-SS-3	DCW-SS-4	DCW-SS-4	DCW-SS-5	DCW-SS-5
Lab Sample ID:		Residential Direct Contact	JB98641-1	JB98641-1U	JB98641-2	JB98641-2R	JB98641-2U	JB98641-3	JB98641-3U	JB98641-4	JB98641-4R	JB98641-5	JB98641-5U
Date Sampled:		Soil	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015
Matrix:		COII	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			6.5-7.0'	6.5-7.0'	5.5-6.0'	5.5-6.0'	5.5-6.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'
GC/MS Volatiles (SW846 8260C	1												
GC/WS VOIALINES (SVV846 8260C	1												
Acetone	mg/kg	NA	0.0154	-	0.02	-	-	0.0278	-	0.025	-	0.0059 J	
Benzene	mg/kg	5	ND (0.00046)	-	ND (0.00052)		-	ND (0.00052)	-	ND (0.00046)	-	ND (0.00048)	
Bromochloromethane	mg/kg	-	ND (0.0046)	-	ND (0.0052)	-	-	ND (0.0052)	-	ND (0.0046)	-	ND (0.0048)	-
Bromodichloromethane	mg/kg	3	ND (0.0018)		ND (0.0021)		-	ND (0.0021)		ND (0.0018)	-	ND (0.0019)	-
Bromoform	mg/kg	280	ND (0.0046)		ND (0.0052)	-	-	ND (0.0052)		ND (0.0046)	-	ND (0.0048)	-
Bromomethane	mg/kg	59	ND (0.0046)		ND (0.0052)	-	-	ND (0.0052)		ND (0.0046)	-	ND (0.0048)	-
2-Butanone (MEK)	mg/kg	44000	ND (0.0091)	-	ND (0.010)	-	-	ND (0.010)	-	ND (0.0092)	-	ND (0.0096)	-
Carbon disulfide	mg/kg	110000	ND (0.0018)		ND (0.0021)	-	-	ND (0.0021)		ND (0.0018)	-	ND (0.0019)	
Carbon tetrachloride	mg/kg	2	ND (0.0018)		ND (0.0021)	-	-	ND (0.0021)		ND (0.0018)		ND (0.0019)	
Chlorobenzene	mg/kg	7400	ND (0.0018)	-	ND (0.0021)	-	-	ND (0.0021)		ND (0.0018)	-	ND (0.0019)	-
Chloroethane	mg/kg	1100	ND (0.0046)	-	ND (0.0052)	-	-	ND (0.0052)	•	ND (0.0046)	•	ND (0.0048)	•
Chloroform	mg/kg	2	ND (0.0018)	-	ND (0.0021)	-	-	ND (0.0021)	-	ND (0.0018)	-	ND (0.0019)	-
Chloromethane	mg/kg	12	ND (0.0046)	-	ND (0.0052)	-	-	ND (0.0052)	<u> </u>	ND (0.0046)		ND (0.0048) ND (0.0019)	- : -
Cyclohexane	mg/kg	0.2	ND (0.0018) ND (0.0018)	<u> </u>	ND (0.0021) ND (0.0021)	-	-	ND (0.0021) ND (0.0021)	-	ND (0.0018) ND (0.0018)		ND (0.0019) ND (0.0019)	
1,2-Dibromo-3-chloropropane Dibromochloromethane	mg/kg	8	ND (0.0018)	-	ND (0.0021) ND (0.0021)		-	ND (0.0021) ND (0.0021)	-	ND (0.0018) ND (0.0018)	-	ND (0.0019) ND (0.0019)	-
1.2-Dibromocniorometnane	mg/kg mg/kg	0.04	ND (0.0018) ND (0.00091)	- :	ND (0.0021) ND (0.0010)			ND (0.0021)	- :	ND (0.0018) ND (0.00092)		ND (0.0019) ND (0.00096)	
1,2-Dibromoetriane 1,2-Dichlorobenzene	mg/kg	59000	ND (0.00091)		ND (0.0010)		-	ND (0.0010)		ND (0.00092)		ND (0.00096)	
1,3-Dichlorobenzene	mg/kg	59000	ND (0.00091)		ND (0.0010)			ND (0.0010)		ND (0.00092)		ND (0.00096)	
1,4-Dichlorobenzene	mg/kg	13	ND (0.00091)	<u> </u>	ND (0.0010)		•	ND (0.0010)		ND (0.00092)		ND (0.00096)	
Dichlorodifluoromethane	mg/kg	230000	ND (0.00091)	<u> </u>	ND (0.0010)	-	-	ND (0.0010)	<u> </u>	ND (0.00092)		ND (0.00096)	
1.1-Dichloroethane	mg/kg	24	ND (0.00091)		ND (0.0032)		-	ND (0.0032)		ND (0.0040)		ND (0.0048)	-
1,2-Dichloroethane	mg/kg	3	ND (0.00091)		ND (0.0010)	-		ND (0.0010)		ND (0.00092)		ND (0.00096)	<u> </u>
1.1-Dichloroethene	mg/kg	150	ND (0.00091)		ND (0.0010)	-	-	ND (0.0010)		ND (0.00092)	-	ND (0.00096)	-
cis-1.2-Dichloroethene	mg/kg	560	ND (0.00091)		ND (0.0010)	-	-	ND (0.0010)		ND (0.00092)	-	ND (0.00096)	
trans-1,2-Dichloroethene	mg/kg	720	ND (0.00091)		ND (0.0010)			ND (0.0010)		ND (0.00092)		ND (0.00096)	
1,2-Dichloropropane	mg/kg	5	ND (0.0018)		ND (0.0021)	-	-	ND (0.0021)		ND (0.0018)		ND (0.0019)	
cis-1,3-Dichloropropene	mg/kg	7	ND (0.0018)		ND (0.0021)	-	-	ND (0.0021)		ND (0.0018)	-	ND (0.0019)	
trans-1,3-Dichloropropene	mg/kg	7	ND (0.0018)		ND (0.0021)		-	ND (0.0021)		ND (0.0018)	-	ND (0.0019)	
Ethylbenzene	mg/kg	110000	ND (0.00091)		ND (0.0010)		-	ND (0.0010)		ND (0.00092)		ND (0.00096)	-
Freon 113	mg/kg	-	ND (0.0046)	-	ND (0.0052)	-	-	ND (0.0052)	-	ND (0.0046)	-	ND (0.0048)	-
2-Hexanone	mg/kg	-	ND (0.0046)	-	ND (0.0052)	-	-	ND (0.0052)	-	ND (0.0046)	-	ND (0.0048)	
Isopropylbenzene	mg/kg		ND (0.0018)	-	ND (0.0021)		-	ND (0.0021)	-	ND (0.0018)	-	ND (0.0019)	-
Methyl Acetate	mg/kg	NA	ND (0.0046)	-	ND (0.0052)		-	ND (0.0052)	-	ND (0.0046)	-	ND (0.0048)	
Methylcyclohexane	mg/kg	-	ND (0.0018)		ND (0.0021)		-	ND (0.0021)		ND (0.0018)	-	ND (0.0019)	
Methyl Tert Butyl Ether	mg/kg	320	ND (0.00091)		ND (0.0010)	-	-	ND (0.0010)		ND (0.00092)	-	ND (0.00096)	-
4-Methyl-2-pentanone(MIBK)	mg/kg		ND (0.0046)	-	ND (0.0052)	-	-	ND (0.0052)	-	ND (0.0046)	-	ND (0.0048)	-
Methylene chloride	mg/kg	97	ND (0.0046)	-	ND (0.0052)	-	-	ND (0.0052)	-	ND (0.0046)	-	ND (0.0048)	-
Styrene	mg/kg	260	ND (0.0018)		ND (0.0021)		-	ND (0.0021)		ND (0.0018)	-	ND (0.0019)	-
Tert Butyl Alcohol	mg/kg	11000	ND (0.023)	-	ND (0.026)	-	-	ND (0.026)	-	ND (0.023)	-	ND (0.024)	-
1,1,2,2-Tetrachloroethane	mg/kg	3	ND (0.0018) ND (0.0018)	-	ND (0.0021)	-	-	ND (0.0021)	-	ND (0.0018)	-	ND (0.0019)	-
Tetrachloroethene Toluene	mg/kg	5 91000	ND (0.0018) 0.00041 J	<u> </u>	ND (0.0021) 0.00055 J	-	-	ND (0.0021) 0.00080 J	<u> </u>	ND (0.0018) 0.00064 J		ND (0.0019) 0.00050 J	- : -
1.2.3-Trichlorobenzene	mg/kg mg/kg	91000	ND (0.0041 J		ND (0.0052)	- :	-	ND (0.0052)		0.00064 J ND (0.0046)		ND (0.0048)	
1,2,3-Trichlorobenzene	mg/kg	820	ND (0.0046)		ND (0.0052)	-	-	ND (0.0052)	-	ND (0.0046)	-	ND (0.0048)	-
1,2,4-1 richloropenzene 1,1,1-Trichloroethane	mg/kg mg/kg	4200	ND (0.0046) ND (0.0018)	- : -	ND (0.0052) ND (0.0021)	-	-	ND (0.0052) ND (0.0021)	- : -	ND (0.0046) ND (0.0018)	<u> </u>	ND (0.0048) ND (0.0019)	
1,1,2-Trichloroethane	mg/kg	6	ND (0.0018)		ND (0.0021)	-	-	ND (0.0021)		ND (0.0018)		ND (0.0019)	
Trichloroethene	mg/kg	20	ND (0.0018)		ND (0.0021)	- :		ND (0.0021)		ND (0.0018)	- :	ND (0.0019)	
Trichlorofluoromethane	mg/kg	340000	ND (0.0046)		ND (0.0010)	- :		ND (0.0010)	<u> </u>	ND (0.0046)		ND (0.0048)	
Vinyl chloride	mg/kg	2	ND (0.0040)		ND (0.0032)			ND (0.0032)		ND (0.0040)		ND (0.0019)	-
m,p-Xylene	mg/kg	170000	ND (0.00091)		ND (0.0021)		-	ND (0.0021)		ND (0.00092)		ND (0.00096)	
o-Xylene	mg/kg	170000	ND (0.00091)		ND (0.0010)	-	-	ND (0.0010)		ND (0.00092)	-	ND (0.00096)	-
Xylene (total)	mg/kg	170000	ND (0.00091)		ND (0.0010)	-	-	ND (0.0010)		ND (0.00092)	-	ND (0.00096)	-
/ //	129		- ()		()	1	Į.	()		_ ()		_ (-::::50)	
GC/MS Volatile TIC													
Total TIC, Volatile	mg/kg	-	0	-	0	-	-	0	-	0	-	0	
Total Alkanes	mg/kg		0	-	0		-	0	-	0	-	0	-

Table 4-59 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 107 - Drum Storage Compound

Client Sample ID:		NJ Non- Residential	DCW-SS-1	DCW-SS-1	DCW-SS-2	DCW-SS-2	DCW-SS-2	DCW-SS-3	DCW-SS-3	DCW-SS-4	DCW-SS-4	DCW-SS-5	DCW-SS-5
Lab Sample ID:		Direct Contact	JB98641-1	JB98641-1U	JB98641-2	JB98641-2R	JB98641-2U	JB98641-3	JB98641-3U	JB98641-4	JB98641-4R	JB98641-5	JB98641-5U
Date Sampled: Matrix:		Soil	7/7/2015 Soil	7/7/2015	7/7/2015	7/7/2015	7/7/2015 Soil	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015 Soil
Depth:			6.5-7.0'	Soil 6.5-7.0'	Soil 5.5-6.0'	Soil 5.5-6.0'	5.5-6.0'	Soil 6.5-7.0'	Soil 6.5-7.0'	Soil 6.5-7.0'	Soil 6.5-7.0'	Soil 6.5-7.0'	6.5-7.0'
			0.0 7.0	0.0 7.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 7.0	0.0 7.0	0.07.0	0.07.0	0.0 7.0	0.0 7.0
GC/MS Semi-volatiles (SW846	8270D)												
2-Chlorophenol	mg/kg	2200	ND (0.077)	_	ND (0.074)			ND (0.075)		ND (0.072)	_	ND (0.074)	
4-Chloro-3-methyl phenol	mg/kg	-	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
2,4-Dichlorophenol	mg/kg	2100	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
2,4-Dimethylphenol 2,4-Dinitrophenol	mg/kg	14000 1400	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	-	-	ND (0.19) ND (0.19)	-	ND (0.18) ND (0.18)	-	ND (0.18) ND (0.18)	-
4,6-Dinitro-o-cresol	mg/kg mg/kg	68	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
2-Methylphenol	mg/kg	3400	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)		ND (0.072)	-	ND (0.074)	-
3&4-Methylphenol	mg/kg	-	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
2-Nitrophenol 4-Nitrophenol	mg/kg mg/kg	-	ND (0.19) ND (0.39)	-	ND (0.19) ND (0.37)	-	-	ND (0.19) ND (0.38)	-	ND (0.18) ND (0.36)	-	ND (0.18) ND (0.37)	-
Pentachlorophenol	mg/kg	10	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
Phenol	mg/kg	210000	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	mg/kg	68000	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	-	-	ND (0.19) ND (0.19)	-	ND (0.18) ND (0.18)	-	ND (0.18) ND (0.18)	-
2,4,5-Trichlorophenol	mg/kg mg/kg	74	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)		ND (0.18)	-	ND (0.18)	-
Acenaphthene	mg/kg	37000	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
Acenaphthylene	mg/kg	300000	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
Acetophenone Anthracene	mg/kg mg/kg	30000	ND (0.19) ND (0.039)	-	ND (0.19) ND (0.037)	- :	-	ND (0.19) ND (0.038)	- :	ND (0.18) ND (0.036)	-	ND (0.18) ND (0.037)	- :
Atrazine	mg/kg	2400	ND (0.039)	-	ND (0.037)	-	-	ND (0.036)	-	ND (0.030)	-	ND (0.037)	-
Benzo(a)anthracene	mg/kg	2	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
Benzo(a)pyrene	mg/kg	0.2	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	
Benzo(b)fluoranthene Benzo(g,h,i)perylene	mg/kg mg/kg	30000	ND (0.039) ND (0.039)	-	ND (0.037) ND (0.037)	-	-	ND (0.038) ND (0.038)		ND (0.036) ND (0.036)		ND (0.037) ND (0.037)	-
Benzo(k)fluoranthene	mg/kg	23	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
4-Bromophenyl phenyl ether	mg/kg	-	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
Butyl benzyl phthalate 1,1'-Biphenyl	mg/kg	14000 34000	ND (0.077) ND (0.077)	-	ND (0.074) ND (0.074)	-	-	ND (0.075) ND (0.075)	-	ND (0.072) ND (0.072)	-	ND (0.074) ND (0.074)	-
Benzaldehyde	mg/kg mg/kg	68000	ND (0.077)	-	ND (0.074)	-	-	ND (0.073)	-	ND (0.072)	-	ND (0.18)	-
2-Chloronaphthalene	mg/kg	-	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)		ND (0.072)	-	ND (0.074)	-
4-Chloroaniline	mg/kg	- 96	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
Carbazole Caprolactam	mg/kg mg/kg	340000	ND (0.077) ND (0.077)	-	ND (0.074) ND (0.074)	-	-	ND (0.075) ND (0.075)	-	ND (0.072) ND (0.072)	-	ND (0.074) ND (0.074)	-
Chrysene	mg/kg	230	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
bis(2-Chloroethoxy)methane	mg/kg	-	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
bis(2-Chloroethyl)ether bis(2-Chloroisopropyl)ether	mg/kg	67	ND (0.077) ND (0.077)	-	ND (0.074) ND (0.074)	-	-	ND (0.075) ND (0.075)	-	ND (0.072) ND (0.072)	-	ND (0.074) ND (0.074)	-
4-Chlorophenyl phenyl ether	mg/kg mg/kg	-	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
2,4-Dinitrotoluene	mg/kg	3	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)		ND (0.036)	-	ND (0.037)	-
2,6-Dinitrotoluene	mg/kg	3	ND (0.039) ND (0.077)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
3,3'-Dichlorobenzidine 1,4-Dioxane	mg/kg mg/kg	4	ND (0.077) ND (0.039)	-	ND (0.074) ND (0.037)		-	ND (0.075) ND (0.038)		ND (0.072) ND (0.036)		ND (0.074) ND (0.037)	-
Dibenzo(a,h)anthracene	mg/kg	0.2	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
Dibenzofuran	mg/kg	-	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
Di-n-butyl phthalate Di-n-octyl phthalate	mg/kg	68000 27000	ND (0.077) ND (0.077)	-	ND (0.074) ND (0.074)	-	-	ND (0.075) ND (0.075)	-	ND (0.072) ND (0.072)	-	ND (0.074) ND (0.074)	-
Diethyl phthalate	mg/kg mg/kg	550000	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
Dimethyl phthalate	mg/kg	-	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
bis(2-Ethylhexyl)phthalate Fluoranthene	mg/kg	140 24000	ND (0.077) ND (0.039)	-	ND (0.074) ND (0.037)	-	-	ND (0.075) ND (0.038)	-	ND (0.072) ND (0.036)	-	ND (0.074) ND (0.037)	-
Fluorene	mg/kg mg/kg	24000	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)		ND (0.036)	-	ND (0.037)	-
Hexachlorobenzene	mg/kg	1	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
Hexachlorobutadiene	mg/kg	25 110	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	
Hexachlorocyclopentadiene Hexachloroethane	mg/kg mg/kg	110	ND (0.39) ND (0.19)	-	ND (0.37) ND (0.19)	-	-	ND (0.38) ND (0.19)	1 -	ND (0.36) ND (0.18)	-	ND (0.37) ND (0.18)	1 -
Indeno(1,2,3-cd)pyrene	mg/kg	2	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
Isophorone	mg/kg	2000	ND (0.077)	-	ND (0.074)	-	-	ND (0.075)	-	ND (0.072)	-	ND (0.074)	-
2-Methylnaphthalene 2-Nitroaniline	mg/kg mg/kg	2400 23000	ND (0.077) ND (0.19)	-	ND (0.074) ND (0.19)	-	-	ND (0.075) ND (0.19)	-	ND (0.072) ND (0.18)	-	ND (0.074) ND (0.18)	-
3-Nitroaniline	mg/kg	-	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
4-Nitroaniline	mg/kg	-	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
Naphthalene	mg/kg	17 340	ND (0.039) ND (0.077)	-	ND (0.037) ND (0.074)	-	-	ND (0.038) ND (0.075)	-	ND (0.036) ND (0.072)	-	ND (0.037) ND (0.074)	-
Nitrobenzene N-Nitroso-di-n-propylamine	mg/kg mg/kg	0.3	ND (0.077) ND (0.077)	-	ND (0.074) ND (0.074)	-	-	ND (0.075) ND (0.075)	1 -	ND (0.072) ND (0.072)	-	ND (0.074) ND (0.074)	1 -
N-Nitrosodiphenylamine	mg/kg	390	ND (0.19)	-	ND (0.19)	-	-	ND (0.19)	-	ND (0.18)	-	ND (0.18)	-
Phenanthrene	mg/kg	300000	ND (0.039)	-	ND (0.037)	-	-	ND (0.038)	-	ND (0.036)	-	ND (0.037)	-
Pyrene 1,2,4,5-Tetrachlorobenzene	mg/kg mg/kg	18000	ND (0.039) ND (0.19)	-	ND (0.037) ND (0.19)	-	-	ND (0.038) ND (0.19)		ND (0.036) ND (0.18)	-	ND (0.037) ND (0.18)	-
1,2,7,5°1 GLI AGTILOTODGTIZENE	iliyag	-	IND (0.18)		ND (0.19)	-	<u> </u>	ND (0.13)	· · ·	ND (0.10)		ND (0.16)	
GC/MS Semi-volatile TIC													
				·	0.5::								
Total TIC, Semi-Volatile Total Alkanes	mg/kg mg/kg		0.55 J 0	-	0.21 J 0	-	-	0.39 J 0	-	0	-	0	-
			· •	·		-					-		
GC Semi-volatiles (NJDEP EP	H)												
EPH (C9-C28)	mg/kg	-	ND (7.7)	-	ND (7.2)	-	-	ND (6.9)	-	ND (7.3)	-	ND (7.5)	-
EPH (>C28-C40)	mg/kg	-	ND (7.7)	-	ND (7.2)	-	-	ND (6.9)	-	ND (7.3)	-	ND (7.5)	-
Total EPH (C9-C40)	mg/kg	-	ND (7.7)	-	ND (7.2)	-	-	ND (6.9)	-	ND (7.3)	-	ND (7.5)	-

Table 4-59 Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey Summary of Soil Sample Results at AOC 107 - Drum Storage Compound

Client Sample ID:		NJ Non-	DCW-SS-1	DCW-SS-1	DCW-SS-2	DCW-SS-2	DCW-SS-2	DCW-SS-3	DCW-SS-3	DCW-SS-4	DCW-SS-4	DCW-SS-5	DCW-SS-5
Lab Sample ID:		Residential	JB98641-1	JB98641-1U	JB98641-2	JB98641-2R	JB98641-2U	JB98641-3	JB98641-3U	JB98641-4	JB98641-4R	JB98641-5	JB98641-5U
Date Sampled:		Direct Contact	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015	7/7/2015
Matrix:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth:			6.5-7.0'	6.5-7.0'	5.5-6.0'	5.5-6.0'	5.5-6.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'	6.5-7.0'
					•	•	•	•	•		•		
GC Semi-volatiles (SW846 80	182A)												
Aroclor 1016	mg/kg	1	-	_	_	ND (0.037)	-	-	-	-	ND (0.037)	-	
Aroclor 1221	mg/kg	1	-			ND (0.037)	-		-	-	ND (0.037)		
Aroclor 1232	mg/kg	1				ND (0.037)	-		-		ND (0.037)		
Aroclor 1242	mg/kg	1	-			ND (0.037)	-	-	-	-	ND (0.037)	-	-
Aroclor 1248	mg/kg	1				ND (0.037)	-	-	-	-	ND (0.037)		
Aroclor 1254	mg/kg	1				ND (0.037)					ND (0.037)		
Aroclor 1260	mg/kg	1				ND (0.037)	-	-	-	-	ND (0.037)		-
Aroclor 1268	mg/kg	1			-	ND (0.037)	-	-	-	-	ND (0.037)	-	
Aroclor 1262	mg/kg	1			-	ND (0.037)	-	-	-	-	ND (0.037)		-
								*	· 				
Metals Analysis													
Aluminum	mg/kg	NA	13000		15900			12600		9690	_	12500	
Antimony	mg/kg	450	ND (2.3)		ND (2.3)	-	-	ND (2.2)	-	ND (2.2)	-	ND (2.3)	
Arsenic	mg/kg	19	6.2		4.7		-	5.6	-	4	-	7.6	-
Barium	mg/kg	59000	205		75			97.4		62.1		83.9	
Beryllium	mg/kg	140	0.91		0.87		-	1.1	-	0.65	-	1	-
Cadmium	mg/kg	78	ND (0.58)		ND (0.57)		-	ND (0.56)	-	ND (0.56)	-	ND (0.57)	-
Calcium	mg/kg	-	1200		732			1010		960	-	1370	
Chromium	mg/kg	-	20.6		22.7			22.1		18.3	-	27	
Cobalt	mg/kg	590	12.2		13.8			14.7	-	8.2		22.6	
Copper	mg/kg	45000	26		19.8	-	-	32.5	-	14.1	-	57.9	
Iron	mg/kg	-	26100		27700			27300		21900		31500	
Lead	mg/kg	800	13.9		13			16.2		10.1		18.7	
Magnesium	mg/kg	-	4550	-	5880	-	-	4830	-	4120	-	6240	
Manganese	mg/kg	5900	499	-	474	-	-	779	-	415	-	1540	
Mercury	mg/kg	65	ND (0.034)		ND (0.036)		-	ND (0.037)	-	ND (0.036)	-	0.11	
Nickel	mg/kg	23000	29.2		25.8		-	27.4	-	19.2	-	29.3	
Potassium	mg/kg		1380		2060	-	-	1560	-	1520	-	2160	-
Selenium	mg/kg	5700	ND (2.3)		ND (2.3)	-	-	ND (2.2)	-	ND (2.2)	-	ND (2.3)	-
Silver	mg/kg	5700	ND (0.58)		0.8	-	-	0.56	-	0.76	-	1.1	
Sodium	mg/kg		ND (1200)		ND (1100)	-	-	ND (1100)	-	ND (1100)	-	ND (1100)	
Thallium	mg/kg	79	ND (1.2)		ND (1.1)	-	-	ND (1.1)	-	ND (1.1)	-	ND (2.3) b	
Vanadium	mg/kg	1100	25.7	-	26	-	-	23.5	-	24.8	-	32.2	
Zinc	mg/kg	110000	68.6	-	61.7	-	-	66.6	-	45.8	-	67.4	-
0 10 11													
General Chemistry													
Chromium, Hexavalent	mg/kg	-	-	ND (0.47)	-	-	0.5	-	0.72	-	-	-	0.67
Nitrogen, Ammonia	mg/kg	-	ND (2.7)	-	22.6	-	-	11.1	-	5.5	-	ND (2.6)	-
Redox Potential Vs H2	mv	-	-	526	-	-	547	-	564	-	-		566
Solids, Percent	%		85.6		87.3	-	-	87.3	-	88.9	-	87	
Sulfide, Neutral Extraction	mg/kg		ND (3.6)		ND (3.7)	-	-	ND (3.6)	-	ND (3.6)	-	ND (3.7)	-
pH	su	-	6.79	6.43	6.13	-	5.7	5.16	5.28	6.08	-	5.45	5.2

pH	su - 6.7	9 6.43	6.13	-	5.7	5.16	5.28	6.08	-	5.45	5.2
All results in mg/kg unless of	therwise noted.										
mg/kg	milligrams per kilogram										
J	Estimated Value										
NS	Not Sampled										
ND	Not Detected										
NA	Not Analyzed	Not Analyzed									
()	Method Detection Limit										
В	Compound Found in Blank										
**	Health based standard defaults to soil saturation limit										
ь	Result is from 2nd run										
a	Result is from 2nd run										
	Exceeds NJDEP Non-Residential So	il Remediation Standard									

Table 4-1
Former Hess Terminal - 750 Cliff Road, Port Reading, New Jersey
Summary of Soil Sample Results at AOC 116 - Diesel Powered Emergency Generator - South Dock

Client Sample ID:		DPG1-SS-1		DPG1-SS-2	DPG1-SS-3	DPG1-SS-4	
Lab Sample ID:		NJ Non-Residential Direct Contact Soil	JB99834-13	JB99834-14	JB99834-15	JB99834-16 7/22/2015 Soil 1.5-2.0 ft	
Date Sampled:		Direct Contact Con	7/22/2015	7/22/2015	7/22/2015		
Matrix:			Soil	Soil	Soil		
Depth:			1.5-2.0 ft	1.5-2.0 ft	1.5-2.0 ft		
GC Semi-volatiles (NJDEP E EPH (C9-C28)	mg/kg	-	63.3	36.5	24	ND (4.4)	
EPH (>C28-C40)	mg/kg	-	60	65.5	37.7	ND (4.4)	
Total EPH (C9-C40)	mg/kg	54000	123	102	61.7	ND (4.4)	
General Chemistry							
Solids, Percent	%	-	95.4	92.4	92.8	94.5	

All results in mg/kg unless	Il results in mg/kg unless otherwise noted.							
mg/kg	milligrams per kilogram							
J	Estimated Value							
NS	Not Sampled							
ND	Not Detected							
NA	Not Analyzed							
()	Method Detection Limit							
В	Compound Found in Blank							
**	Health based standard defaults to soil saturation limit							
b	Result is from 2nd run							
а	Result is from 2nd run							
Exceeds NJDEP Non-Residential Soil Remediation Standard								

Table 4-1

Hess Corporation - Former Port Reading Complex (HC-PR) - 750 Cliff Road, Port Reading, New Jersey Summary of Soil
Analytical Results at AOC 117 - Diesel Powered Emergency Generator - Millwright's Shop

Client Sample ID:		NJ Non- Residential	DPG2-SS-1	DPG2-SS-2	DPG2-SS-3	DPG2-SS-4	
Lab Sample ID:		Direct Contact	JB98902-1	JB98902-2	JB98902-3	JB98902-4 7/10/2015 Soil	
Date Sampled:		Soil	7/10/2015	7/10/2015	7/10/2015		
Matrix:			Soil	Soil	Soil		
GC Semi-volatiles (NJDEP E EPH (C9-C28)	mg/kg	-	38.9	529	325	ND (4.7)	
EPH (>C28-C40)	mg/kg	-	35.7	346	244	ND (4.7)	
Total EPH (C9-C40)	mg/kg	54000	74.6	876	568	ND (4.7)	
General Chemistry							
Solids, Percent	%	-	88.8	91.5	89.3	87.7	

All results in mg/kg unless of	results in mg/kg unless otherwise noted.							
mg/kg	milligrams per kilogram							
J	Estimated Value							
NS	Not Sampled							
ND	Not Detected							
NA	Not Analyzed							
()	Method Detection Limit							
В	Compound Found in Blank							
**	Health based standard defaults to soil saturation limit							
b	Result is from 2nd run							
a	Result is from 2nd run							
	Exceeds NJDEP Non-Residential Soil Remediation Standard							

ATTACHMET 5

GROUNDWATER FIGURES &

TABLES

Figure 5.1 – 2019 Groundwater Contour Map – Shallow

Figure 5.2 – 2019 Groundwater Contour Map – Intermediate

Figure 5.3 – 2019 Groundwater Contour Map – Deep

Figure 5.4 – 2019 AOC 3 – No. 1 Landfarm Groundwater Analytical Results

Figure 5.5 – 2019 AOC 5 – Aeration Basins Groundwater Analytical Results

Figure 5.6 – 2019 AOC 10 – Truck Loading Rack Groundwater Analytical Results (VOCs)

Figure 5.7 – 2019 AOC 10 – Truck Loading Rack Groundwater Analytical Results (SVOCs)

Figure 5.8 – 2019 AOC 10 – Truck Loading Rack Groundwater Analytical Results (Metals)

Figure 5.9 – 2019 AOC 11a – Administration Building Groundwater Analytical Results (VOCs)

Figure 5.10 – 2019 AOC 11a – Administration Building Groundwater Analytical Results (SVOCs)

Figure 5.11 – 2019 AOC 11a – Administration Building Groundwater Analytical Results (Metals)

Figure 5.12 - 2019 AOC 12 - Detention Basin & Smith Creek Groundwater Analytical Results

Figure 5.13 – 2019 AOC 14a – First Tankfield Groundwater Analytical Results

Figure 5.14 – 2019 AOC 16b – Marine Loading Dock Groundwater Analytical Results

Figure 5.15 – 2019 AOC 19 – QC Laboratory Groundwater Analytical Results

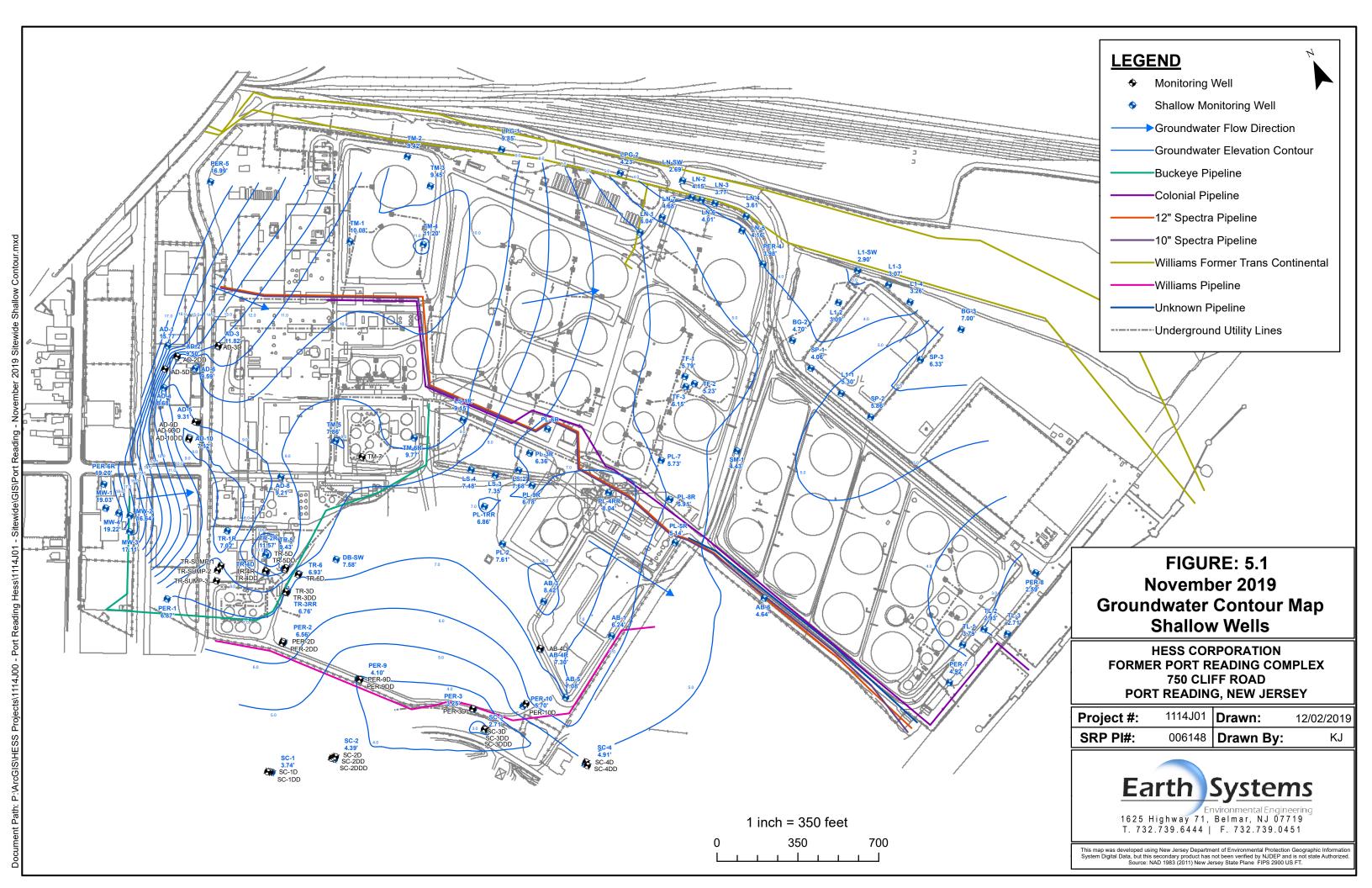
Figure 5.16 – 2019 TRMU Groundwater Analytical Results

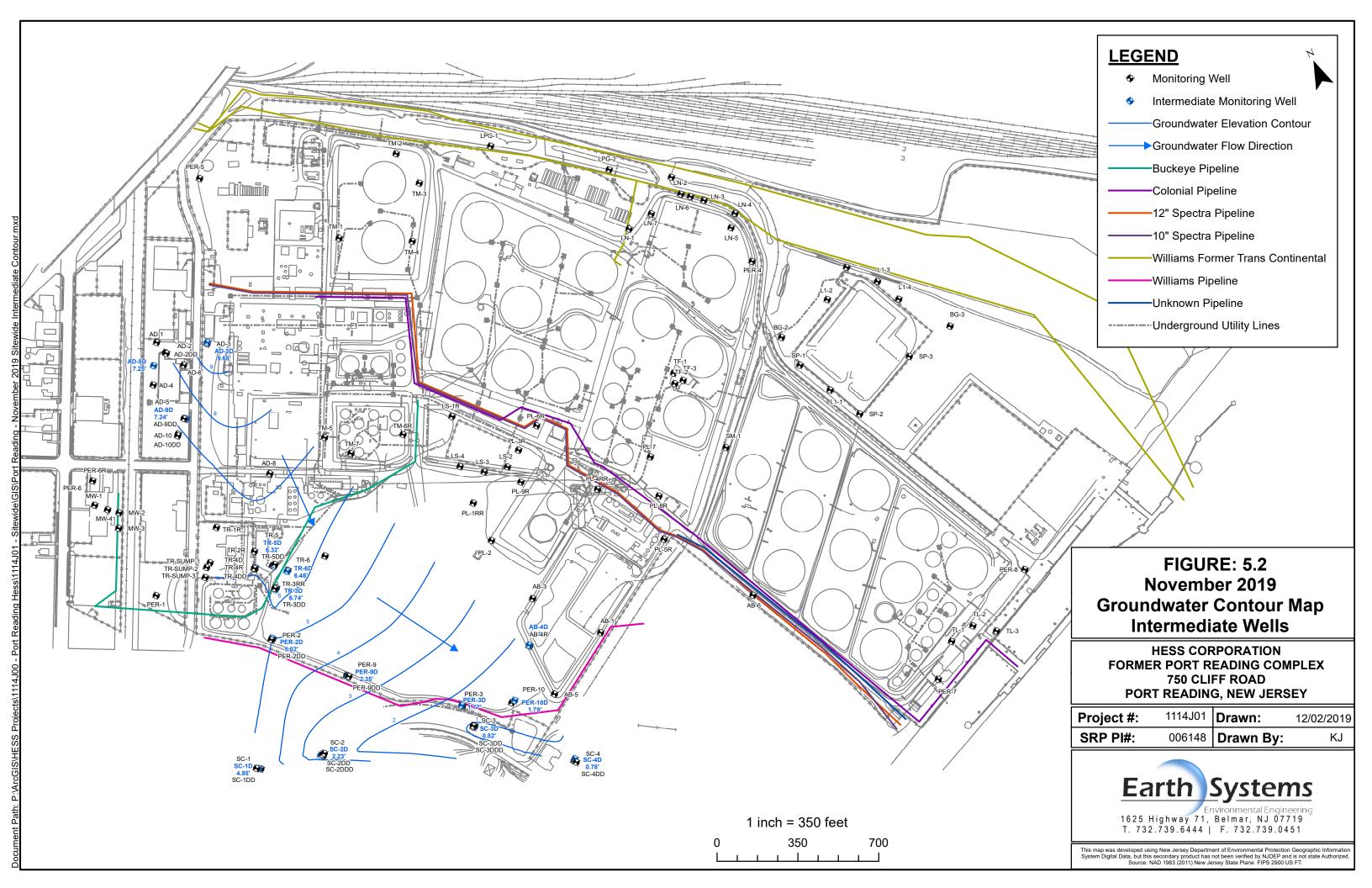
Figure 5.17 – 2019 SRMU Groundwater Analytical Results

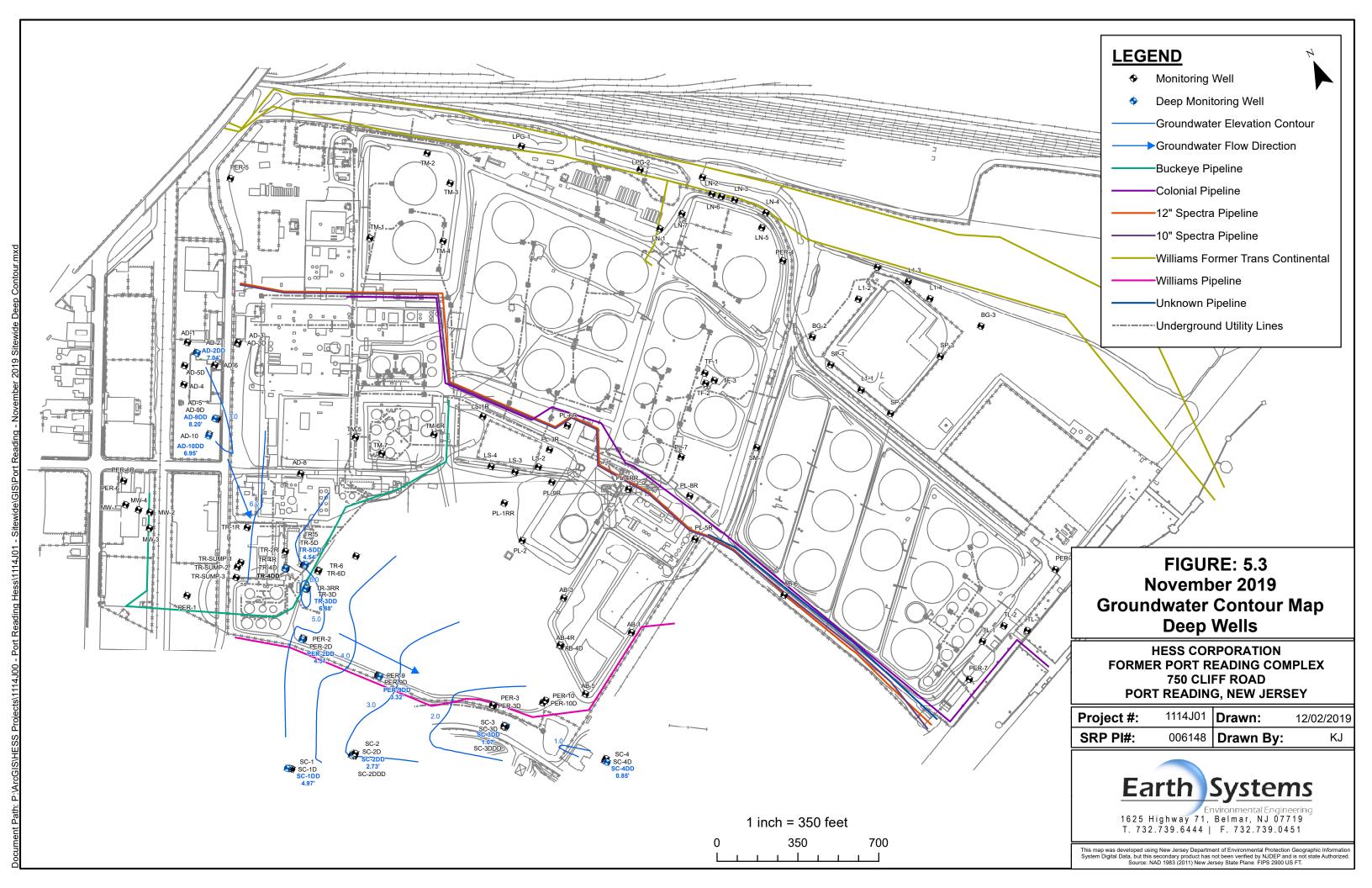
Figure 5.18 – 2019 Offsite PSEG Groundwater Analytical Results

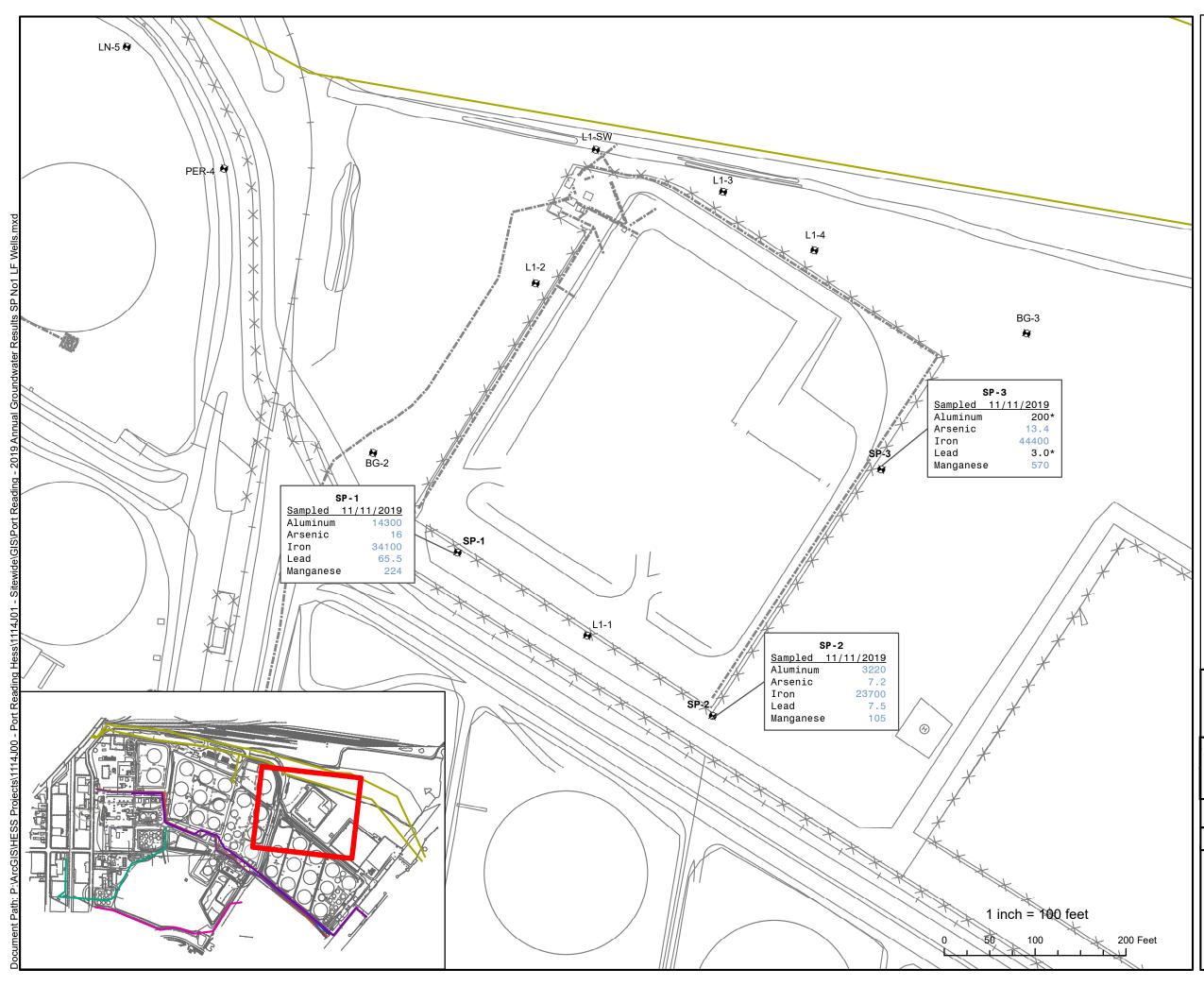
Figure 5.19 through Figure 5.38 – Groundwater Concentrations Isopleth Figures

Table 5.1 – 2019 Annual Groundwater Analytical Results









Monitoring Well



Colonial Pipeline

12" Spectra Pipeline

-10" Spectra Pipeline

Williams Former Trans Continental

-Williams Pipeline

-Unknown Pipeline

----- Underground Utility Lines

NJ Groundwater Criteria	
Aluminum	200
Arsenic	3
Iron	300
Lead	5
Manganese	50

- 1. All Results were measured in ug/l
 2. * Result was found to be less than GWQS
 3. VOC, SVOC, and General Chemistry results all under GWQS.

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 AOC 3 - NO. 1 LANDFARM

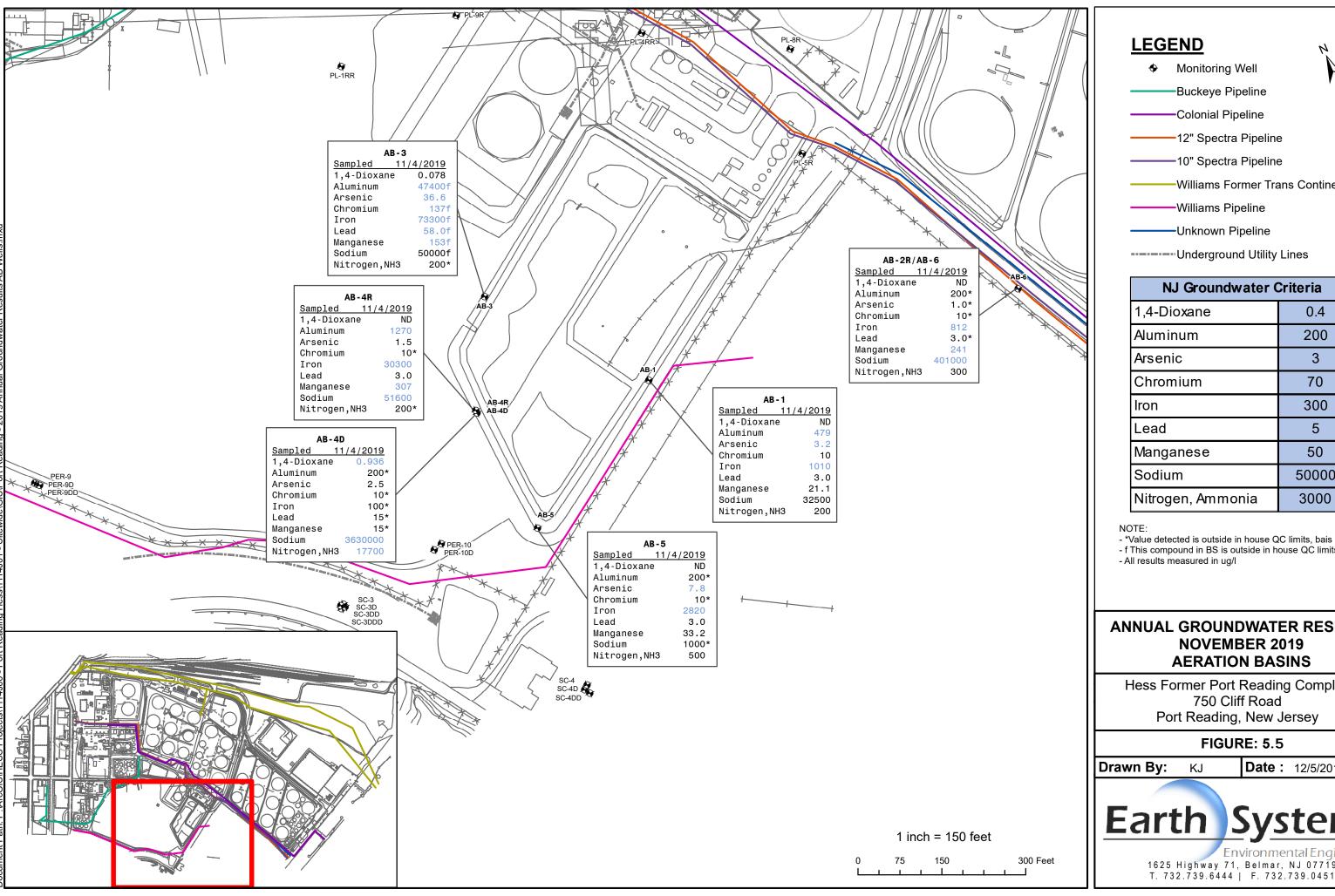
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 5.4

Drawn By: KJ **Date**: 12/5/2019



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Colonial Pipeline

·12" Spectra Pipeline

-10" Spectra Pipeline

Williams Former Trans Continental

-Williams Pipeline

-Unknown Pipeline

-----Underground Utility Lines

NJ Groundwater Criteria	
1,4-Dioxane	0.4
Aluminum	200
Arsenic	3
Chromium	70
Iron	300
Lead	5
Manganese	50
Sodium	50000
Nitrogen, Ammonia	3000

- *Value detected is outside in house QC limits, bais low.
- f This compound in BS is outside in house QC limits bias high.

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 AERATION BASINS

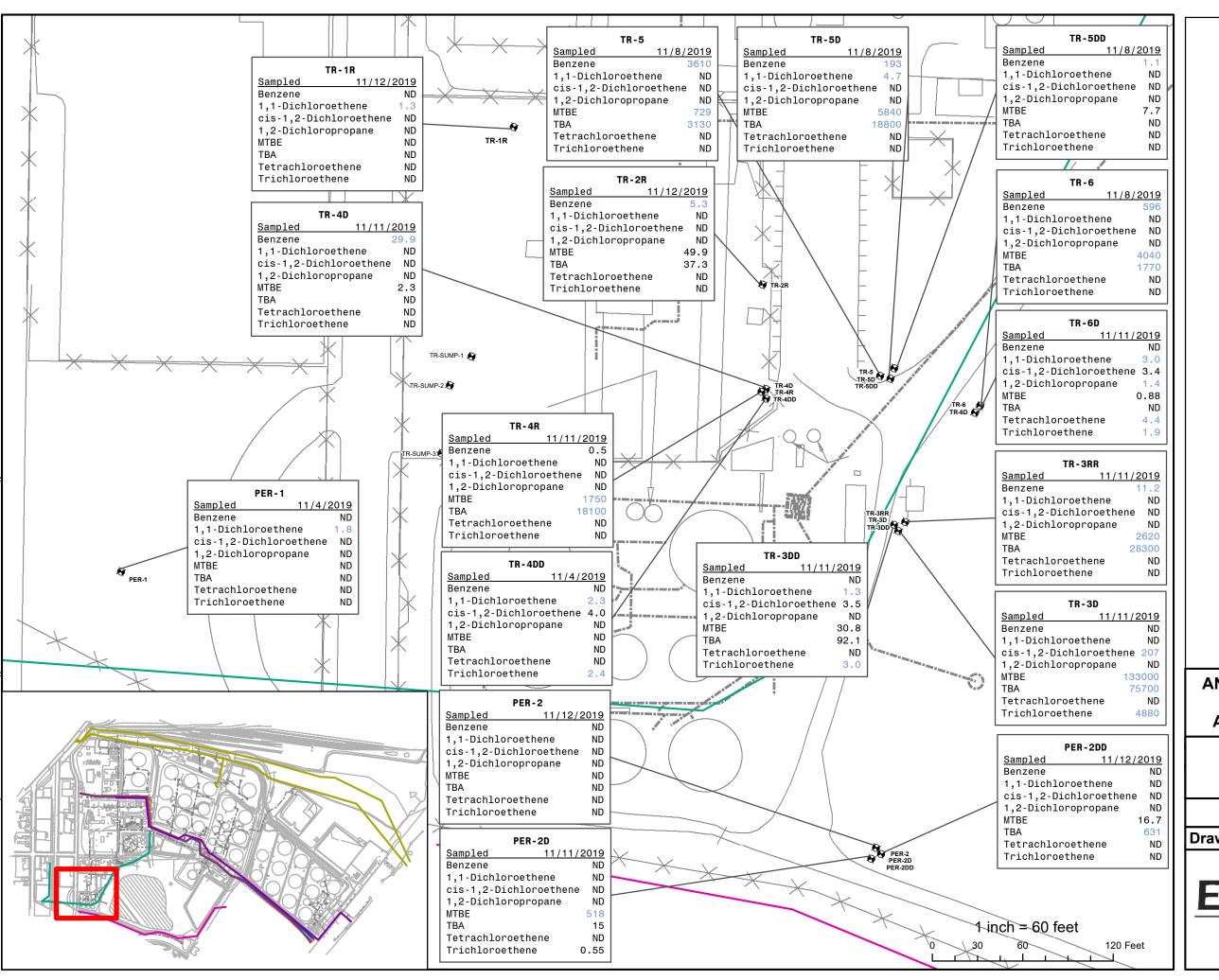
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 5.5

Date: 12/5/2019



1625 Highway 71, Belmar, NJ 07719



Monitoring Well

Buckeye Pipeline

─Colonial Pipeline

-12" Spectra Pipeline

——10" Spectra Pipeline

—Williams Former Trans Continental

----Williams Pipeline

----Unknown Pipeline

-----Underground Utility Lines

NJ Groundwater Criteria	
Benzene	1
1,1-Dichloroethene	1
cis-1,2-Dichloroethene	70
1,2-Dichloropropane	1
Methyl Tert Butyl Ether	70
Tert Butyl Alcohol	100
Tetrachloroethene	1
Trichloroethene	1

NOTE:

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 AOC 10 - TRUCK LOADING RACK

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

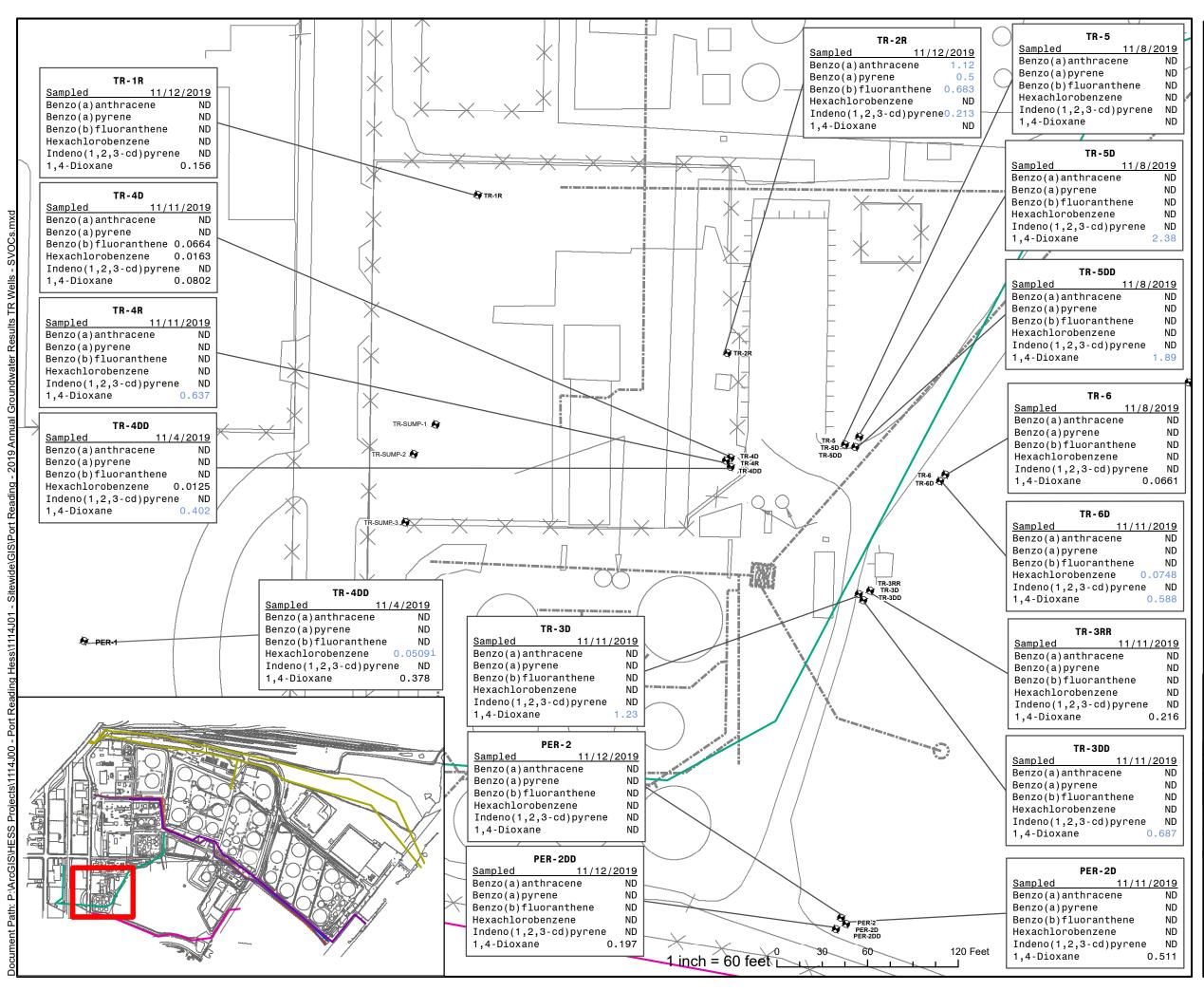
FIGURE: 5.6

Drawn By: KJ **Date:** 12/9/2019



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^{*} Results were measured in ug/l



1

Monitoring Well

Buckeye Pipeline

-Colonial Pipeline

-12" Spectra Pipeline

-10" Spectra Pipeline

—Williams Former Trans Continental

-Williams Pipeline

Unknown Pipeline

------Underground Utility Lines

NJ Groundwater Criteria	
Benzo(a)anthracene	0.1
Benzo(a)pyrene	0.1
Benzo(b)fluoranthene	0.2
Hexachlorobenzene	0.02
Indeno(1,2,3-cd)pyrene	0.2
1,4-Dioxane	0.4

NOTE:

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 - SVOC AOC 10 - TRUCK LOADING RACK

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

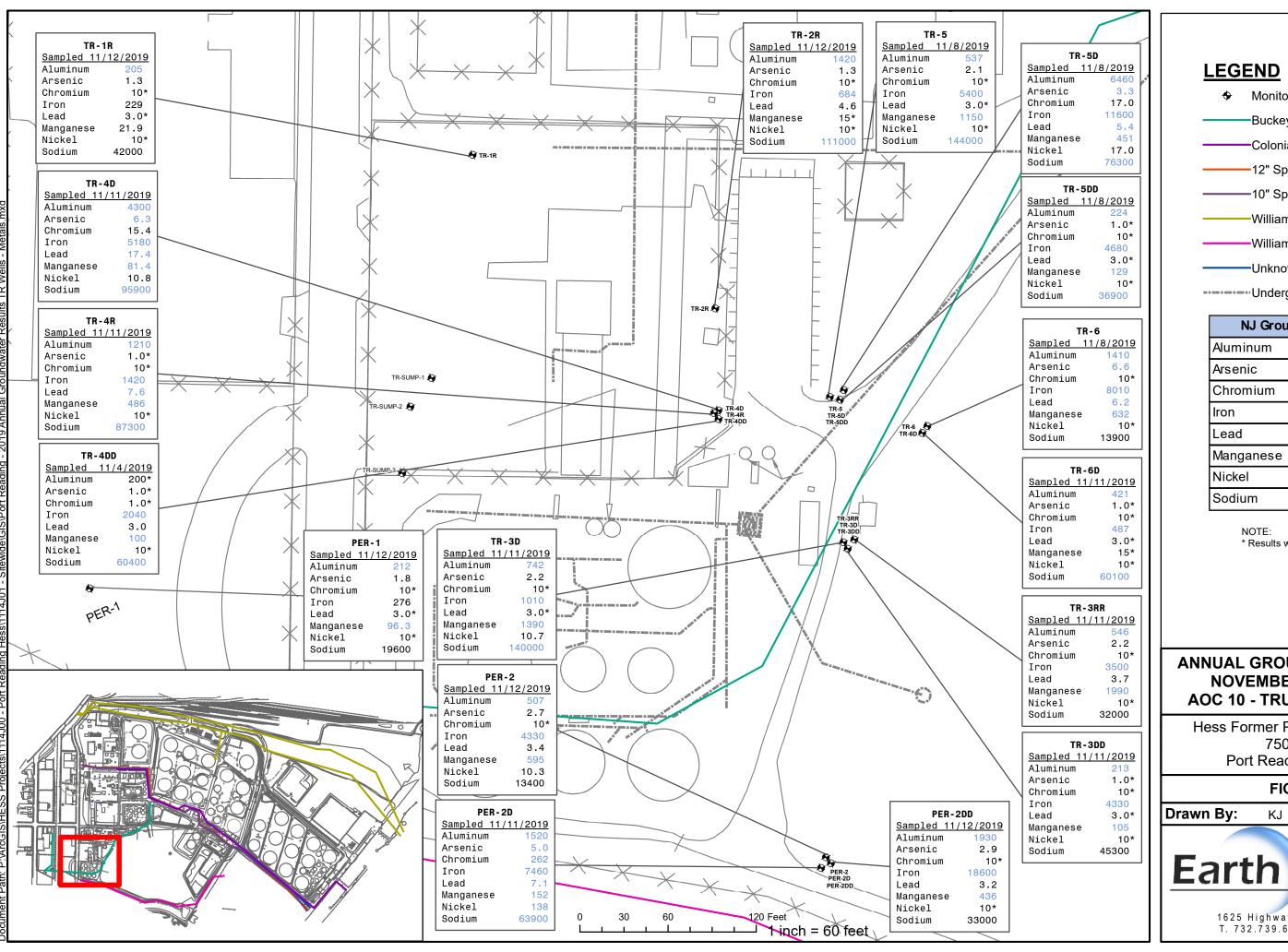
FIGURE: 5.7

Drawn By: KJ **Date**: 12/9/2019



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^{*} Results were measured in ug/l



Monitoring Well

Buckeye Pipeline

Colonial Pipeline

·12" Spectra Pipeline

10" Spectra Pipeline

-Williams Former Trans Continental

-Williams Pipeline

Unknown Pipeline

-----Underground Utility Lines

NJ Groundwater Criteria	
Aluminum	200
Arsenic	3
Chromium	70
Iron	300
Lead	5
Manganese	50
Nickel	100
Sodium	50000

^{*} Results were measured in ug/l

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 - METALS AOC 10 - TRUCK LOADING RACK

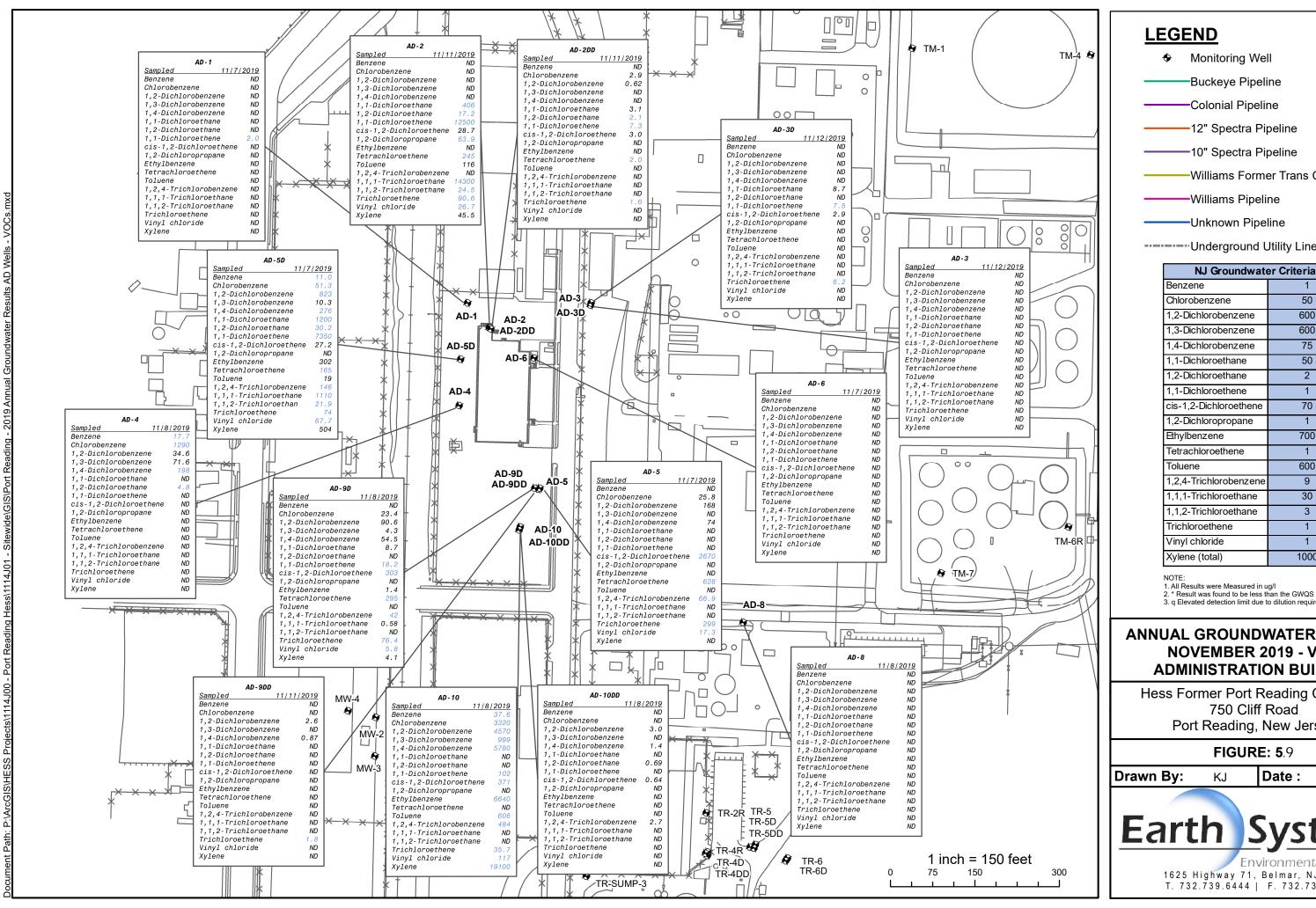
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 5.8

Date: 12/9/2019



1625 Highway 71, Belmar, NJ 07719 T. 732.739.6444 | F. 732.739.0451



12" Spectra Pipeline

·10" Spectra Pipeline

Williams Former Trans Continental

Unknown Pipeline

-----Underground Utility Lines

NJ Groundwate	er Criteria
Benzene	1
Chlorobenzene	50
1,2-Dichlorobenzene	600
1,3-Dichlorobenzene	600
1,4-Dichlorobenzene	75
1,1-Dichloroethane	50
1,2-Dichloroethane	2
1,1-Dichloroethene	1
cis-1,2-Dichloroethene	70
1,2-Dichloropropane	1
Ethylbenzene	700
Tetrachloroethene	1
Toluene	600
1,2,4-Trichlorobenzene	9
1,1,1-Trichloroethane	30
1,1,2-Trichloroethane	3
Trichloroethene	1
Vinyl chloride	1
Xylene (total)	1000

3. q Elevated detection limit due to dilution required for matrix interference.

ANNUAL GROUNDWATER RESULTS **NOVEMBER 2019 - VOCs** ADMINISTRATION BUILDING

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

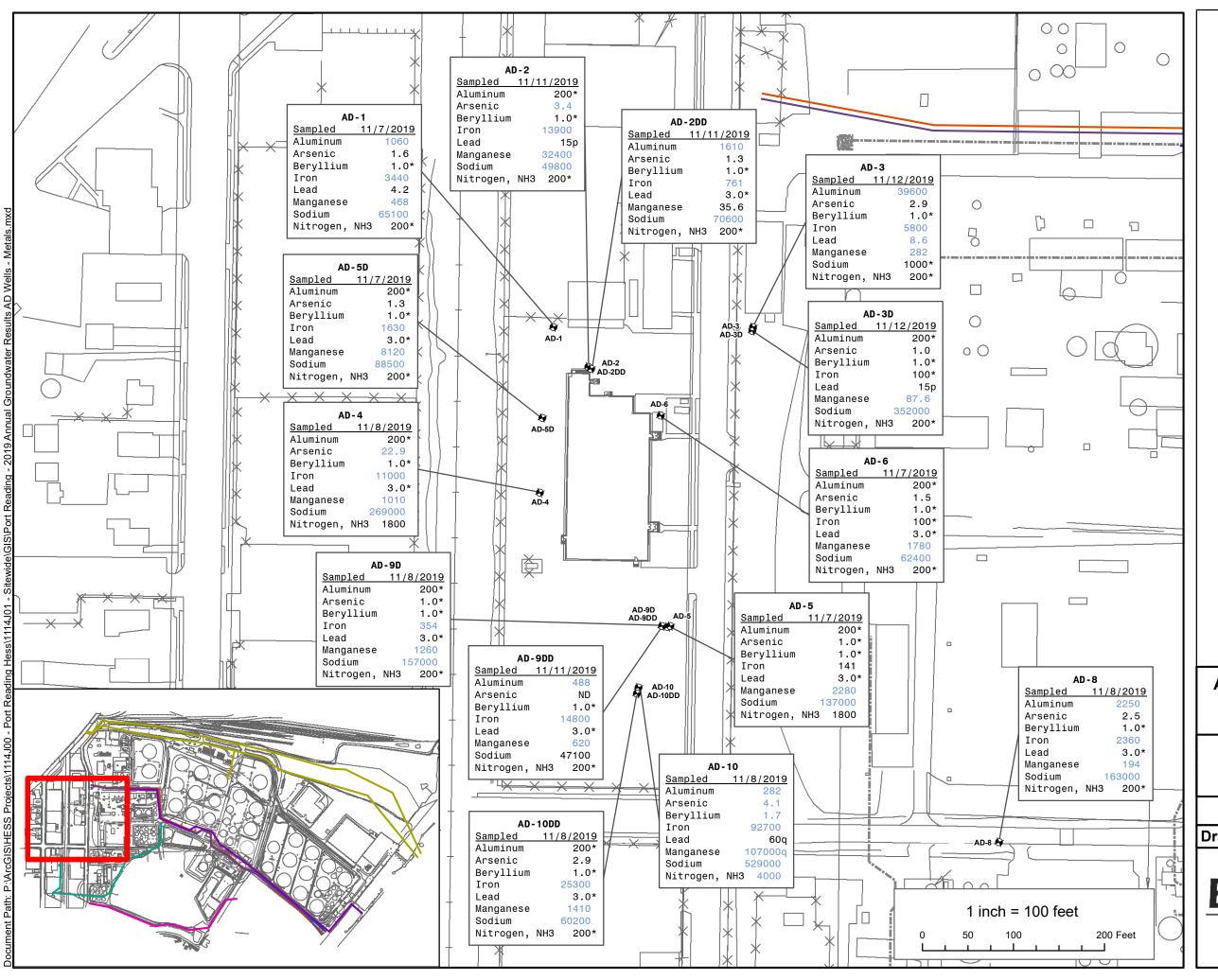
FIGURE: 5.9

Date: 12/9/2019



1625 Highway 71, Belmar, NJ 07719 T. 732.739.6444 | F. 732.739.0451





Monitoring Well



—Buckeye Pipeline

Colonial Pipeline

-12" Spectra Pipeline

-10" Spectra Pipeline

Williams Former Trans Continental

Williams Pipeline

---Unknown Pipeline

-----Underground Utility Lines

NJ Groundwater Criteria	
Aluminum	200
Arsenic	3
Beryllium	1
Iron	300
Lead	5
Manganese	50
Sodium	50000
Nitrogen, Ammonia	3000

NOTF:

- 1. All results Measured in ug/l
- 2.* Result was found to be less than the GWQS
- 3. p Elevated detection limit due to dilution required for high interfering element.
- 4. q Elevated detection limit due to dilution required for matrix interference.

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 - METALS ADMINISTRATION BUILDING

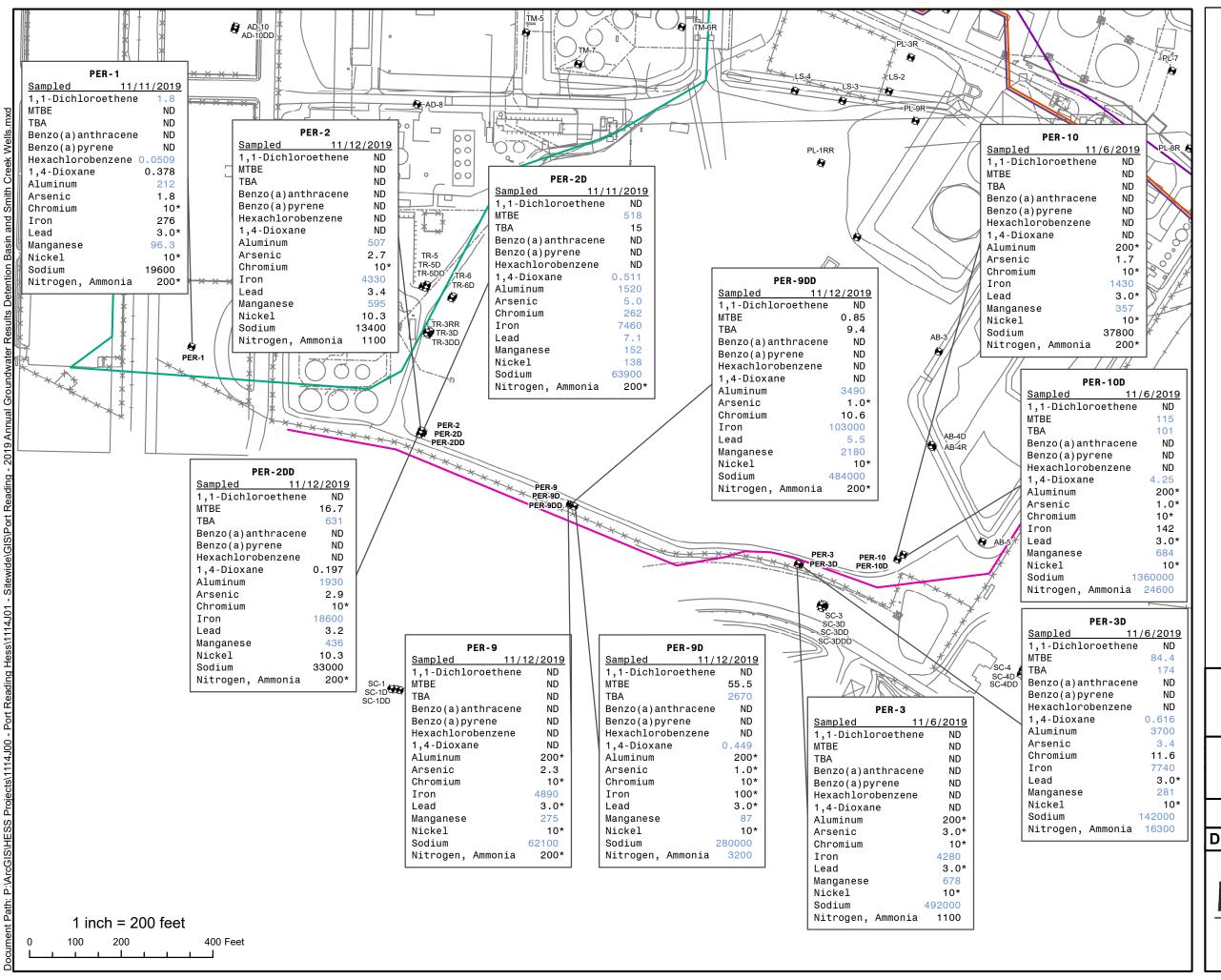
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 5.11

Drawn By: KJ **Date:** 12/9/2019



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Monitoring Well

-Buckeye Pipeline

—Colonial Pipeline

—12" Spectra Pipeline

-10" Spectra Pipeline

—Williams Former Trans Continental

---Williams Pipeline

Unknown Pipeline

-----Underground Utility Lines

NJ Groundwater Criteria	
1,1-Dichloroethene	1
Methyl Tert Butyl Ether	70
Tert Butyl Alcohol	100
Benzo(a)anthracene	0.1
Benzo(a)pyrene	0.1
Hexachlorobenzene	0.02
1,4-Dioxane	0.4
Aluminum	200
Arsenic	3
Chromium	70
Iron	300
Lead	5
Manganese	50
Nickel	100
Sodium	50000
Nitrogen, Ammonia	3000

NOTE:

1. All results were measured in ug/l

2. * Result was found to be less than the GWQS

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 DETENTION BASIN/SMITH CREEK

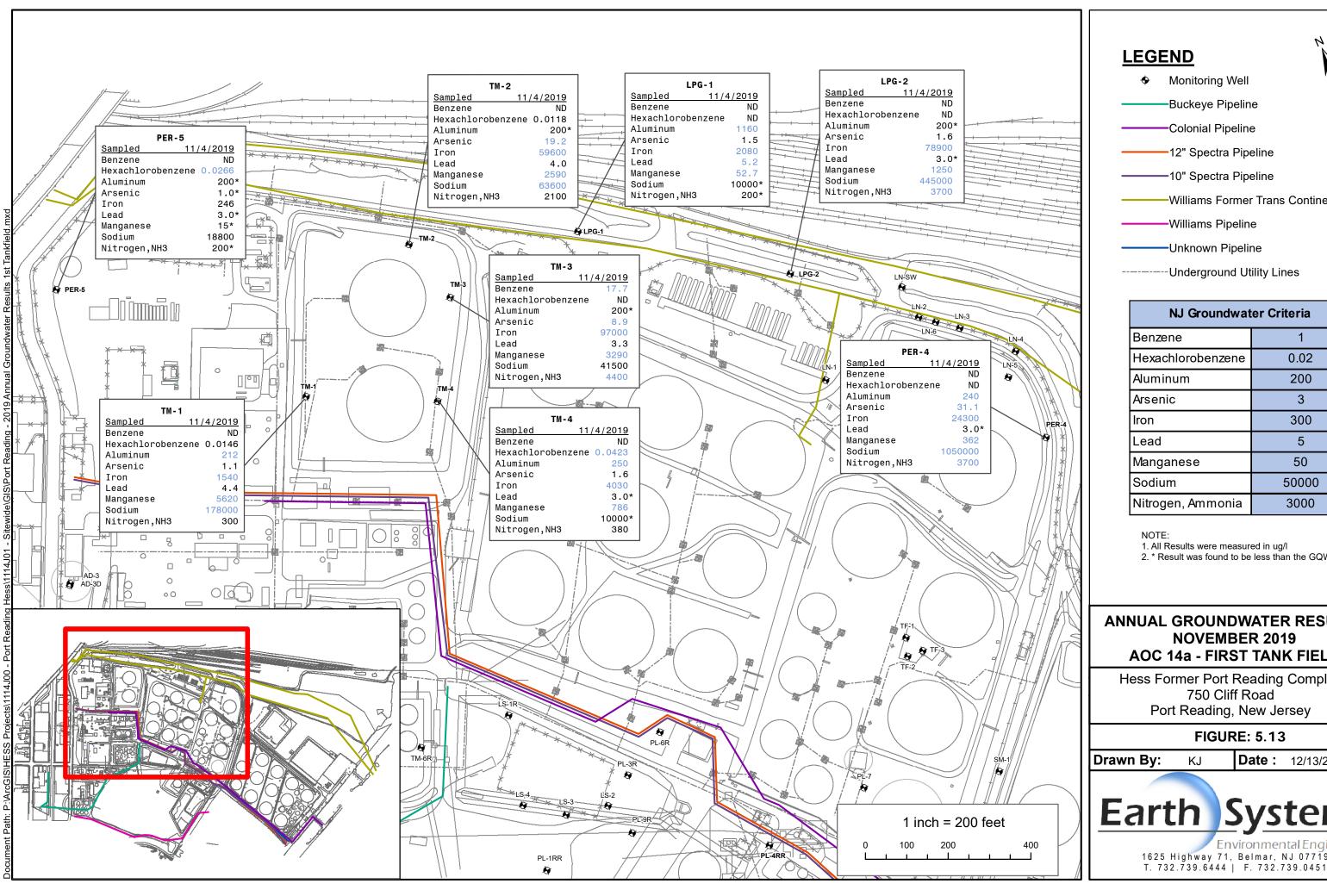
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 5.12

Drawn By: KJ **Date:** 12/11/2019



Environmental Engineering 1625 Highway 71, Belmar, NJ 07719 T. 732.739.6444 | F. 732.739.0451



Williams Former Trans Continental

NJ Groundwater Criteria	
Benzene	1
Hexachlorobenzene	0.02
Aluminum	200
Arsenic	3
Iron	300
Lead	5
Manganese	50
Sodium	50000
Nitrogen, Ammonia	3000

- 2. * Result was found to be less than the GQWS

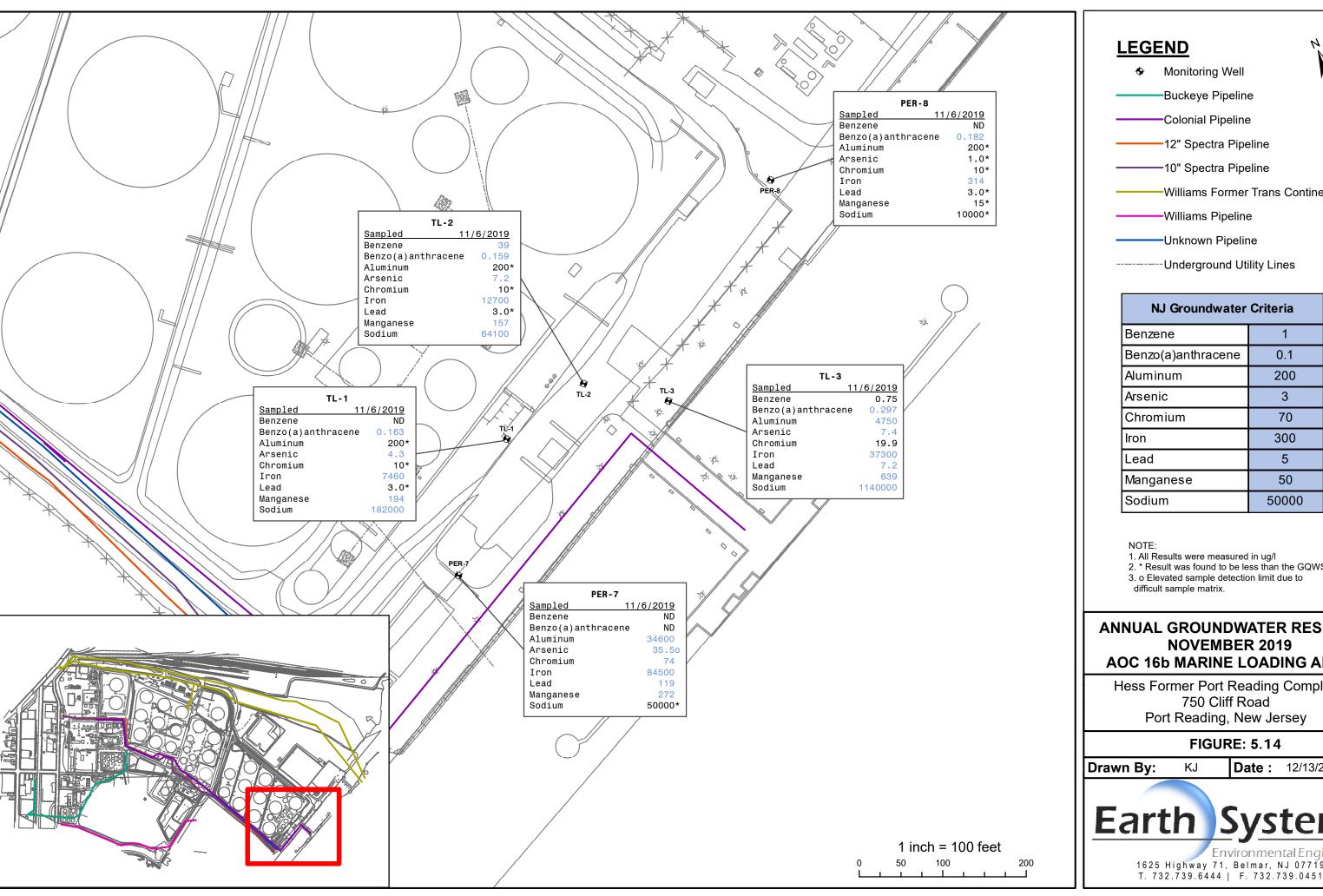
ANNUAL GROUNDWATER RESUTLS NOVEMBER 2019 AOC 14a - FIRST TANK FIELD

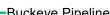
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

Date: 12/13/2019



1625 Highway 71, Belmar, NJ 07719





-10" Spectra Pipeline

Williams Former Trans Continental

Williams Pipeline

Unknown Pipeline

-----Underground Utility Lines

NJ Groundwater Criteria	
Benzene	1
Benzo(a)anthracene	0.1
Aluminum	200
Arsenic	3
Chromium	70
Iron	300
Lead	5
Manganese	50
Sodium	50000

- 2. * Result was found to be less than the GQWS
- 3. o Elevated sample detection limit due to

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 AOC 16b MARINE LOADING AREA

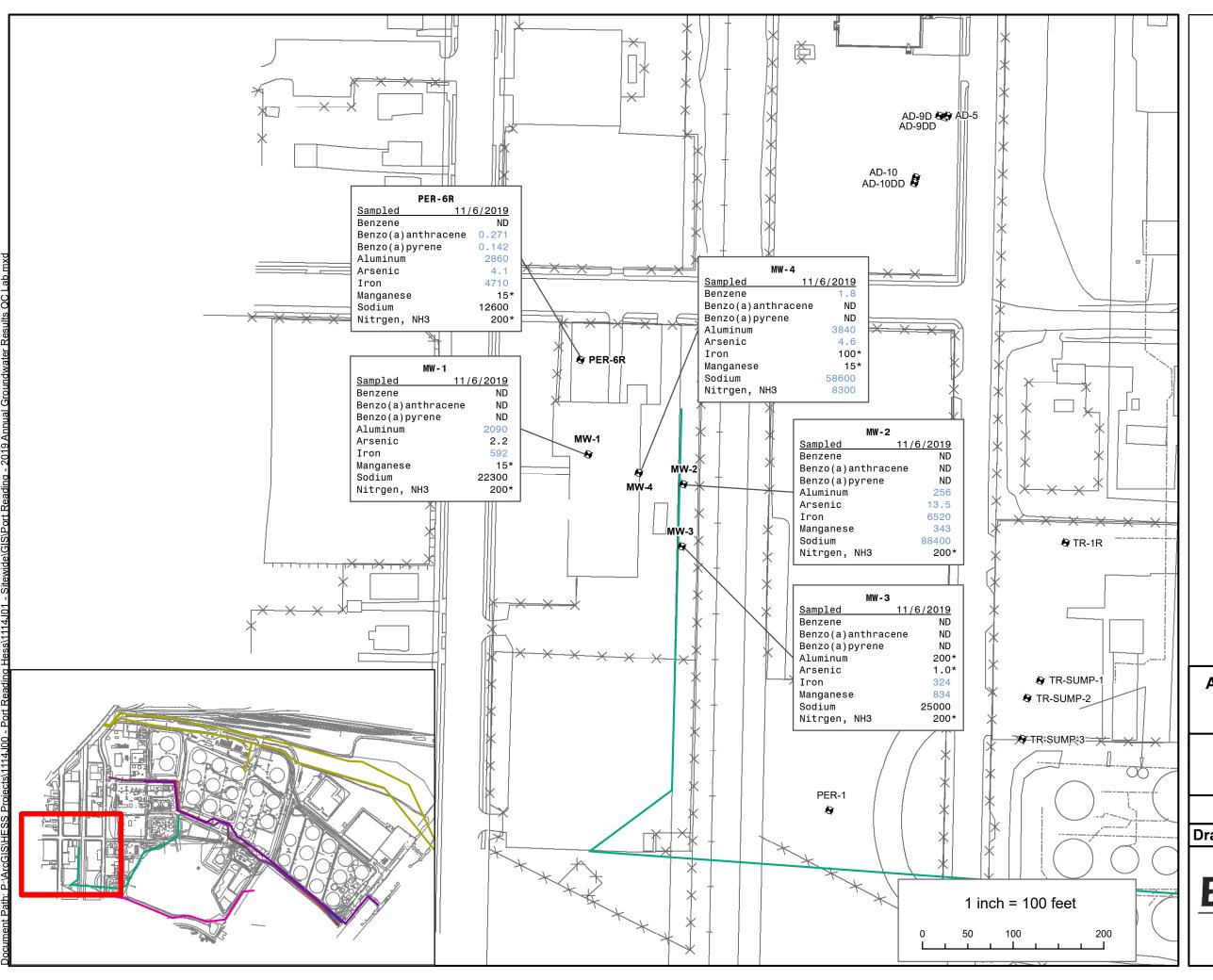
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 5.14

Date: 12/13/2019



1625 Highway 71, Belmar, NJ 07719



a'

- Monitoring Well
- Buckeye Pipeline
- —Colonial Pipeline
- 12" Spectra Pipeline
- —10" Spectra Pipeline
- —Williams Former Trans Continental
- ----Williams Pipeline
- ——Unknown Pipeline
- ------Underground Utility Lines

NJ Groundwater Criteria	
Benzene	1
Benzo(a)anthracene	0.1
Benzo(a)pyrene	0.1
Aluminum	200
Arsenic	3
Iron	300
Manganese	50
Sodium	50000
Nitrogen, Ammonia	3000

NOTE

- 1. All results were measured in ug/l
- 2.* Result was found to be less than the GQWS

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 QC LAB

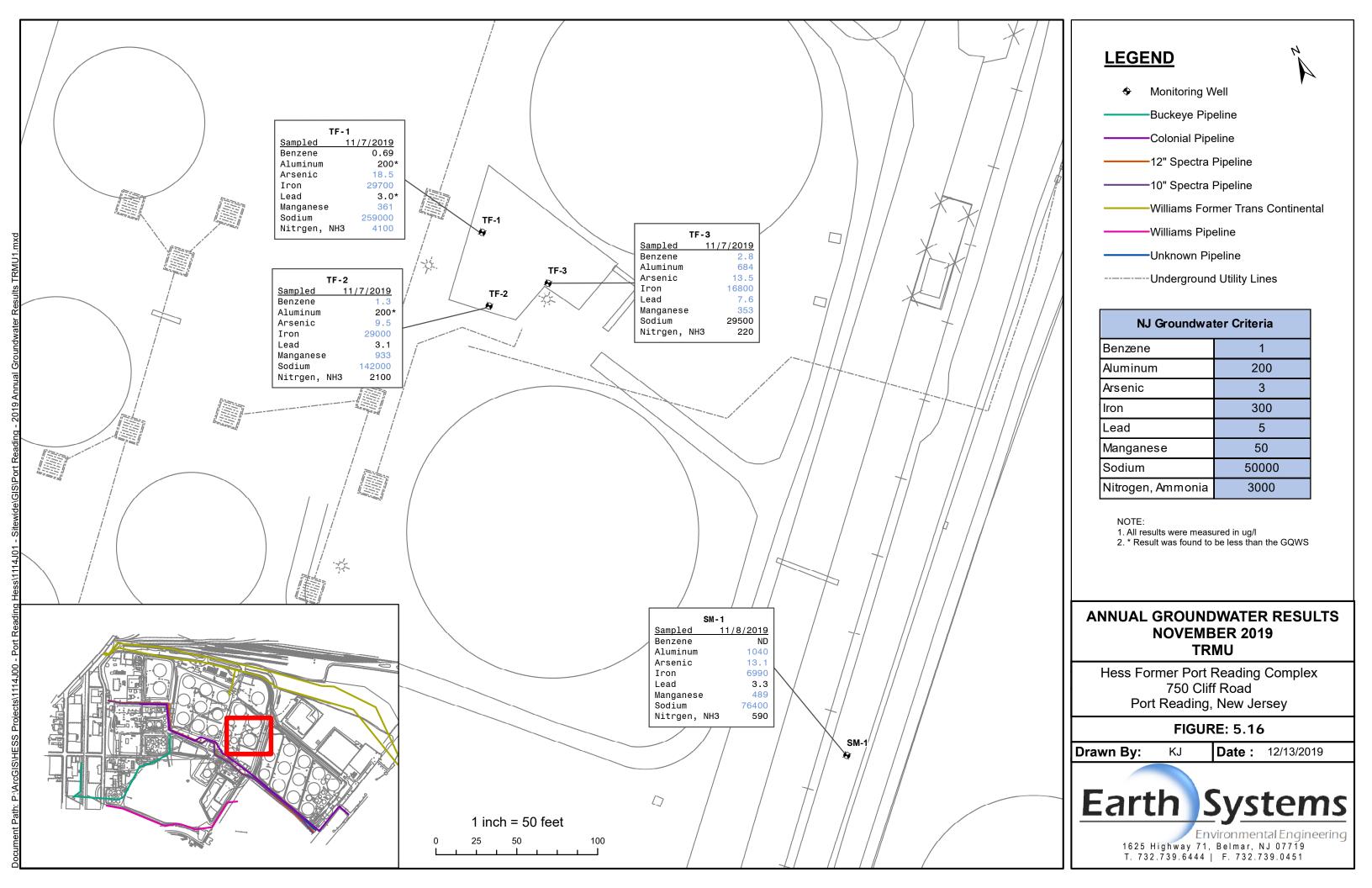
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

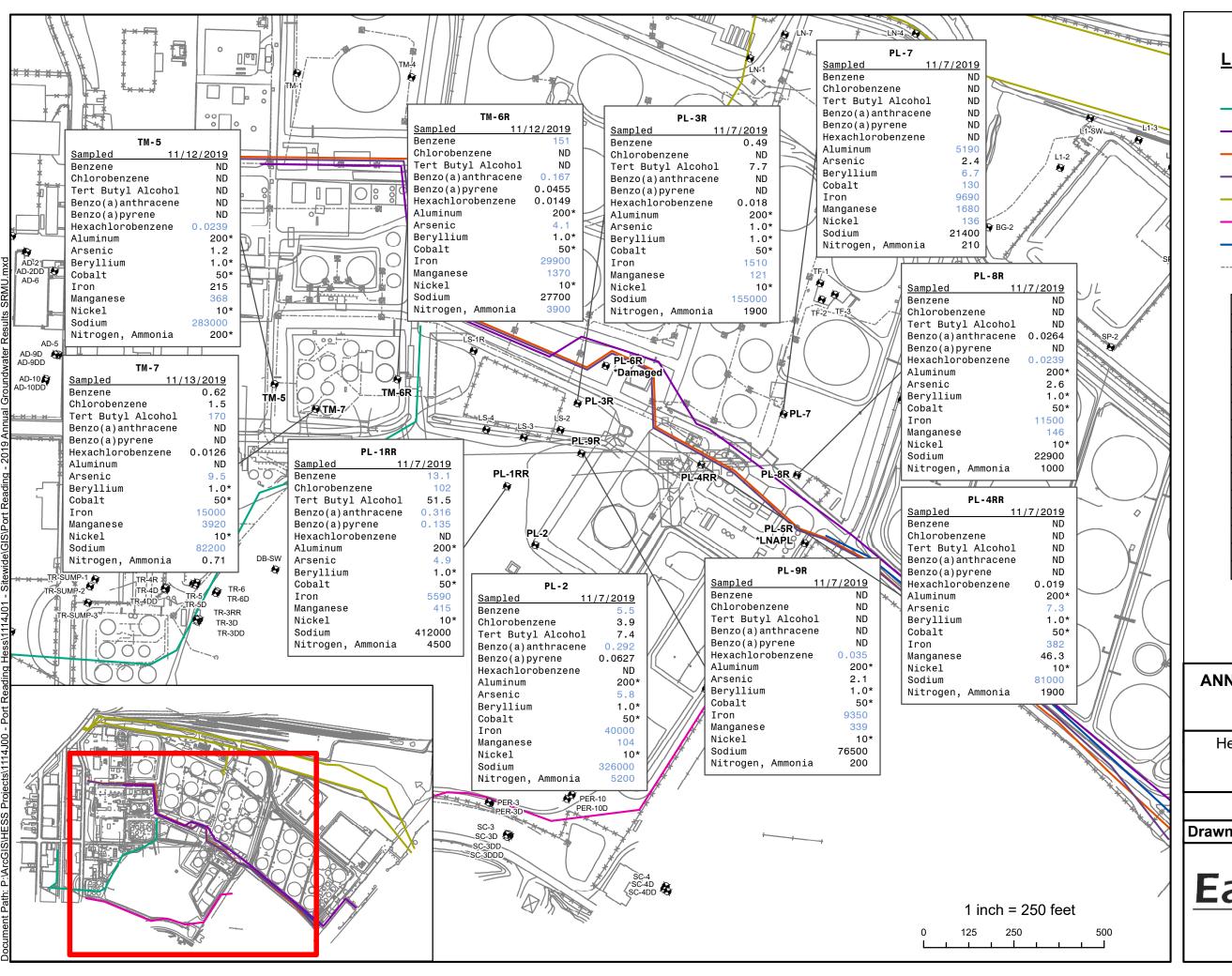
FIGURE: 5.15

Drawn By: KJ **Date:** 12/13/2019



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- Monitoring Well
- Buckeye Pipeline
- —— Colonial Pipeline
 - 12" Spectra Pipeline
- 10" Spectra Pipeline
- Williams Former Trans Continental
- Williams Pipeline
- Unknown Pipeline
- ----- Underground Utility Lines

NJ Groundwater Criteria	
Benzene	1
Chlorobenzene	50
Tert Butyl Alcohol	100
Benzo(a)anthracene	0.1
Benzo(a)pyrene	0.1
Hexachlorobenzene	0.02
Aluminum	200
Arsenic	3
Beryllium	1
Cobalt	100
Iron	300
Manganese	50
Nickel	100
Sodium	50000
Nitrogen, Ammonia	3000

NOTE:

- 1. All Results were Measured in ug/l
- 2.* Result was found to be less than the GWQS

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 SRMU

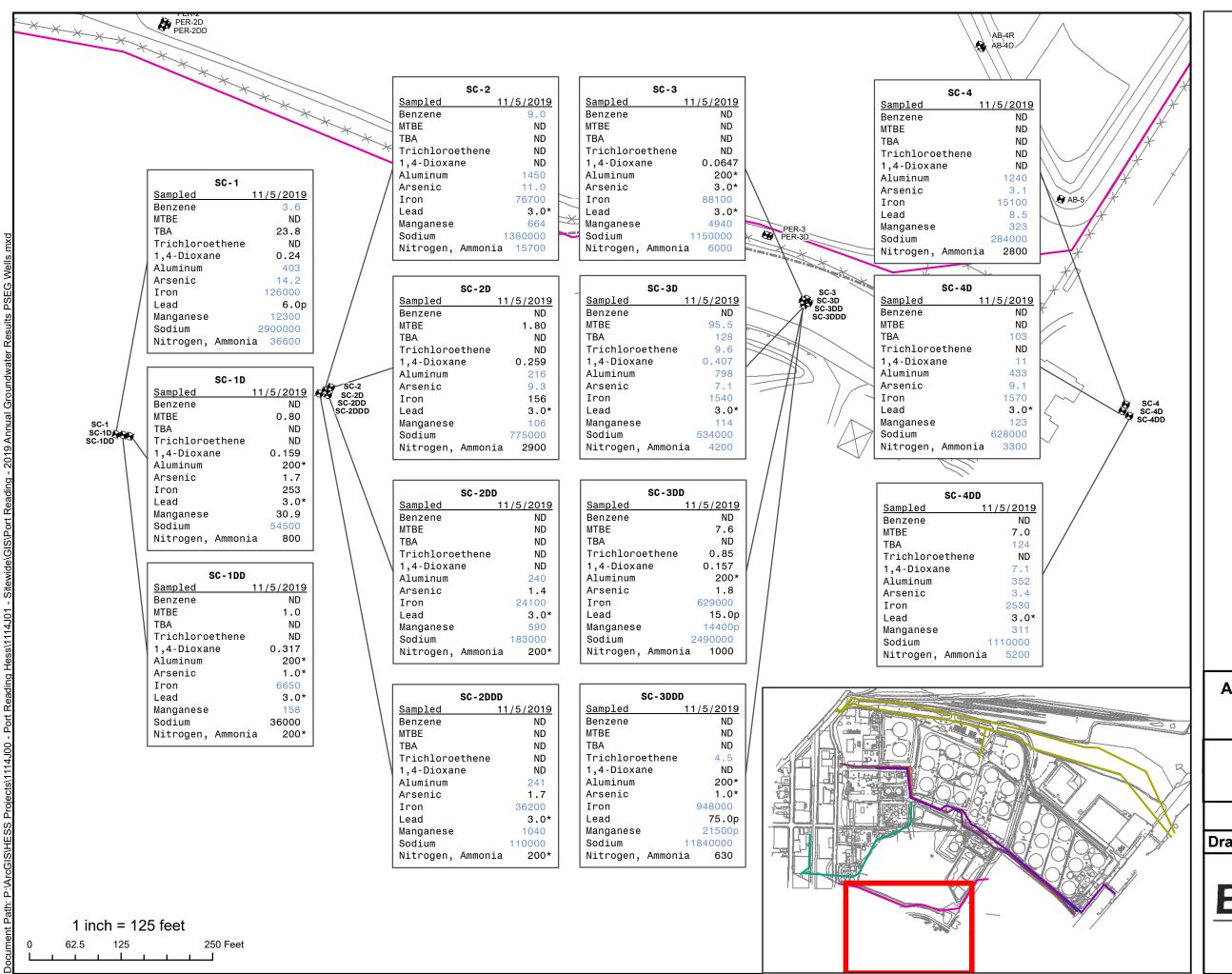
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 5.17

Drawn By: KJ **Date:** 12/13/2019



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Monitoring Well



-Buckeye Pipeline

——Colonial Pipeline

—12" Spectra Pipeline

—10" Spectra Pipeline

—Williams Former Trans Continental

-----Williams Pipeline

Unknown Pipeline

-----Underground Utility Lines

NJ Groundwater Criteria	
Benzene	1
Methyl Tert Butyl Ether	70
Tert Butyl Alcohol	100
Trichloroethene	1
1,4-Dioxane	0.4
Aluminum	200
Arsenic	3
Iron	300
Lead	5
Manganese	50
Sodium	50000
Nitrogen, Ammonia	3000

NOTE

- 1. All results were measured in ug/l
- 2. * Result was found to be less than the GWQS
- p Elevated detection limit due to dilution required for high interfering element.

ANNUAL GROUNDWATER RESULTS NOVEMBER 2019 OFFSITE PSEG WELLS

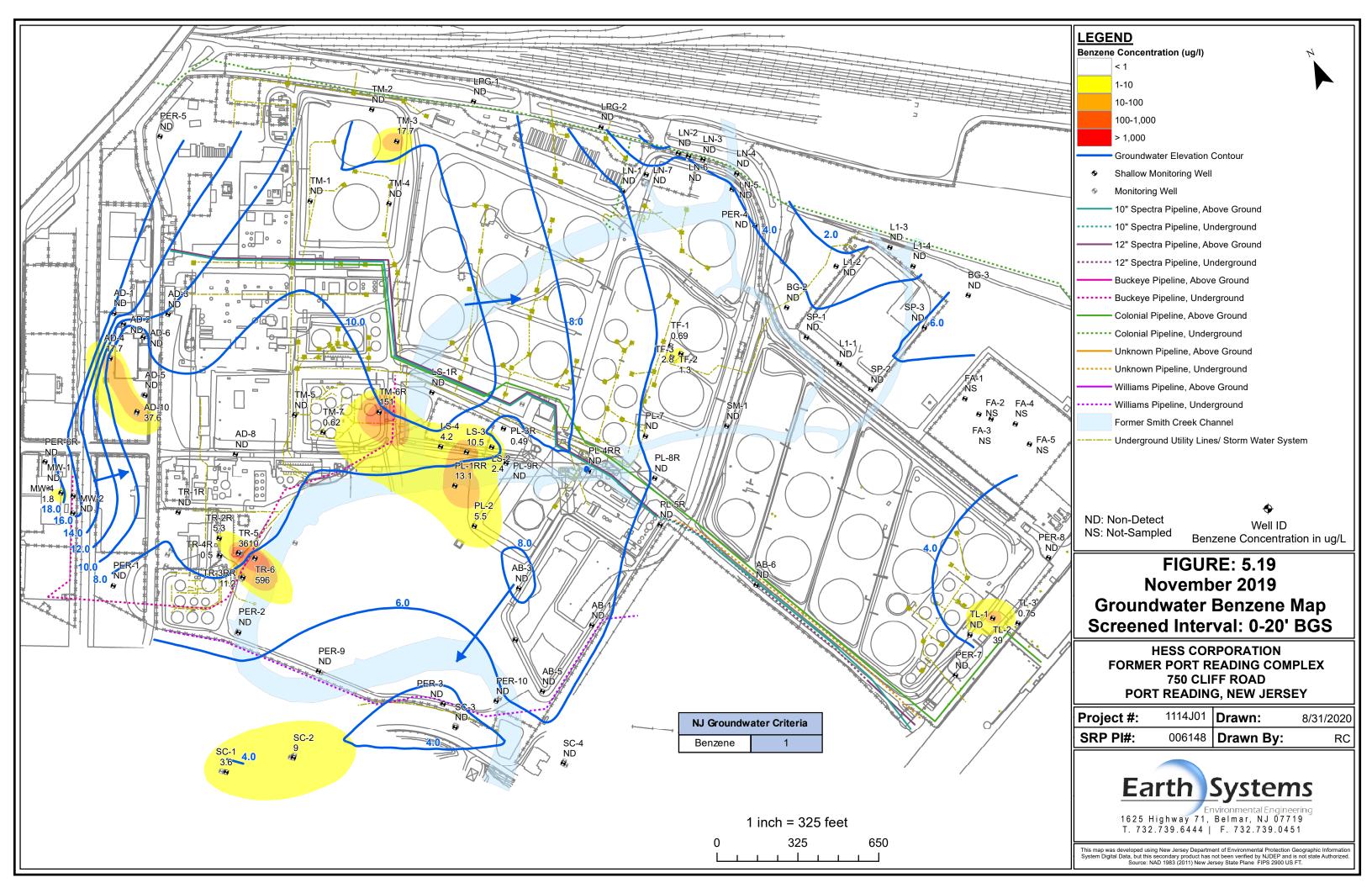
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

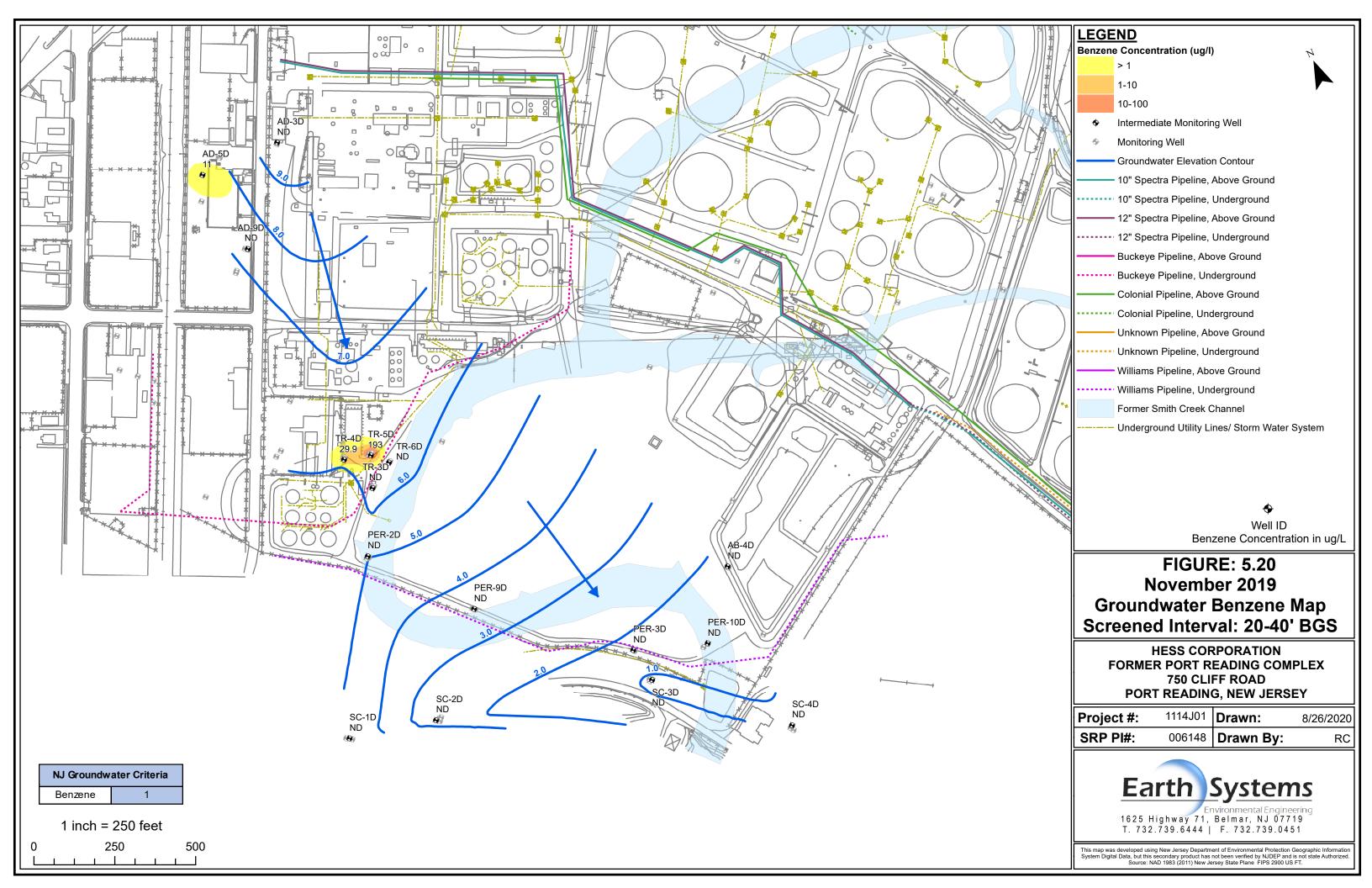
FIGURE: 5.18

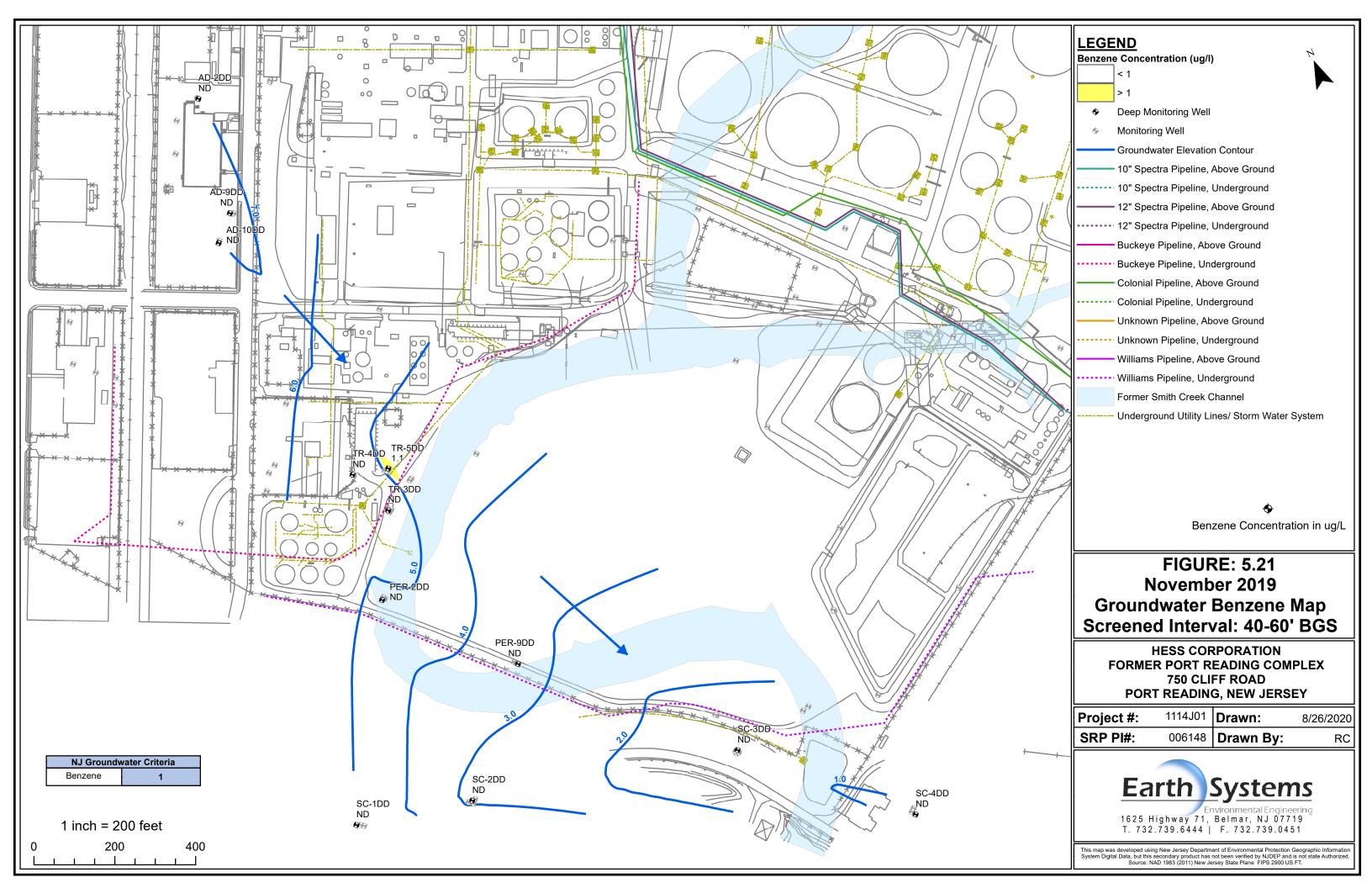
Drawn By: KJ **Date:** 12/11/2019

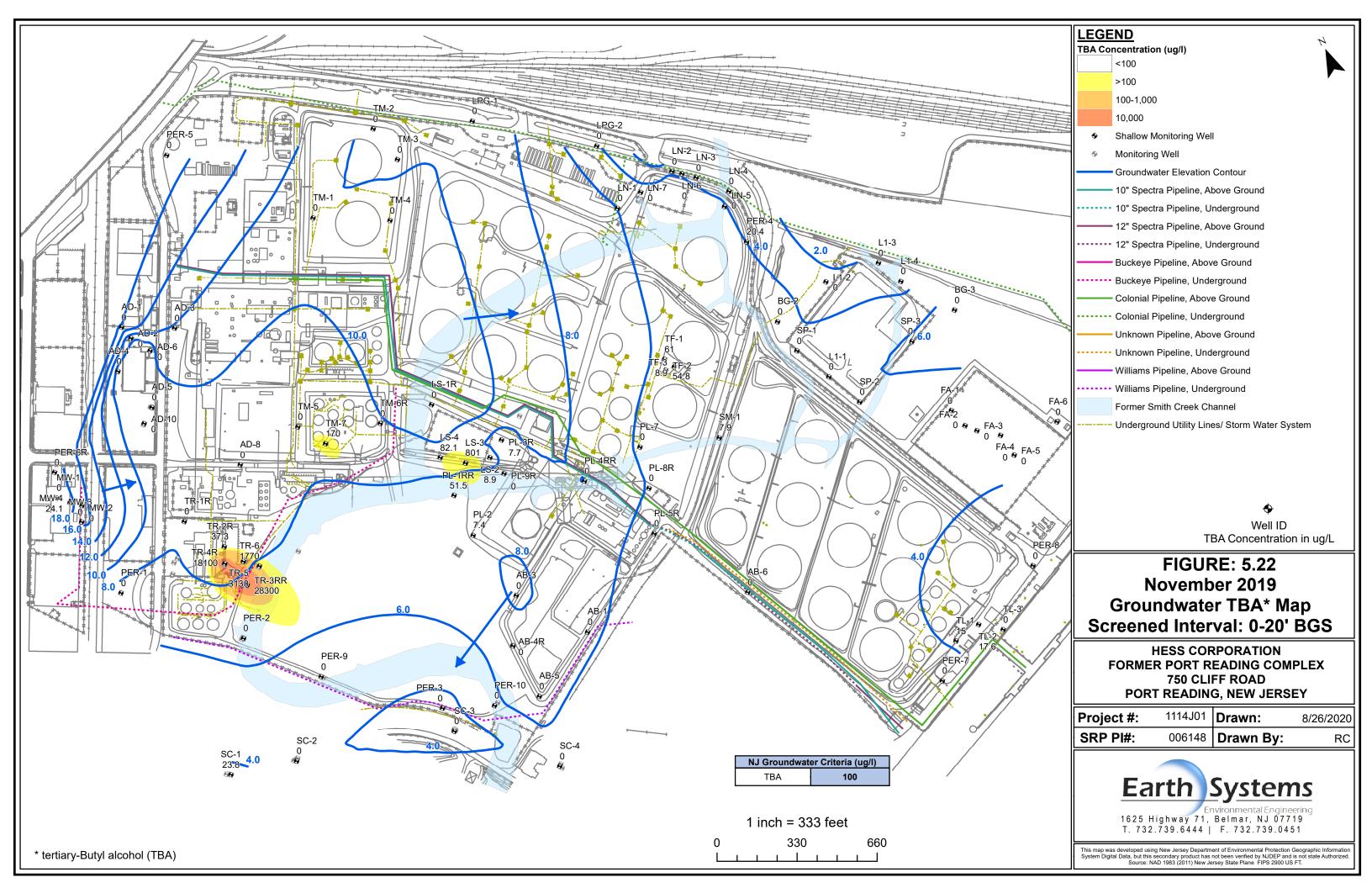


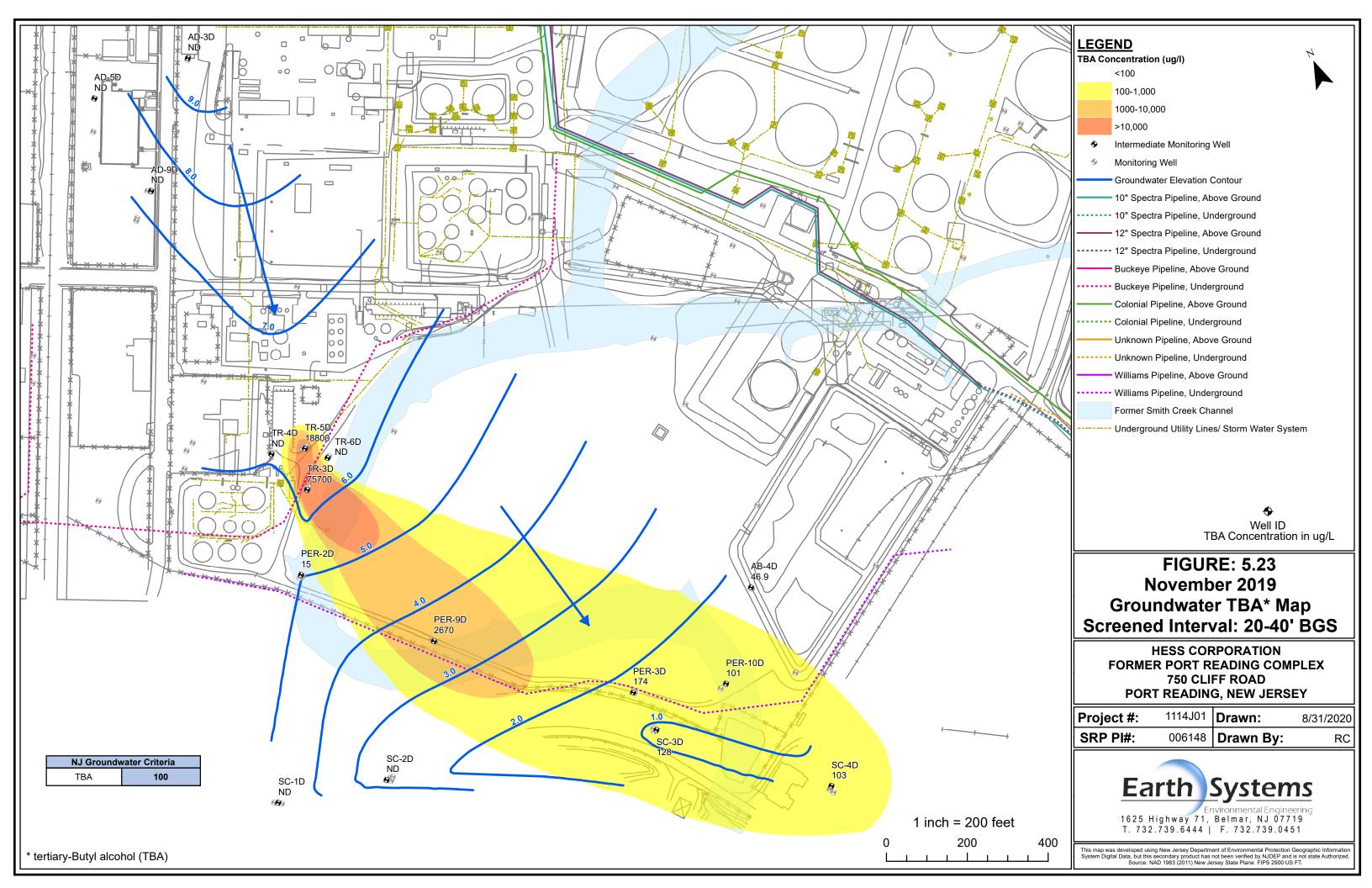
Environmental Engineerin 1625 Highway 71, Belmar, NJ 07719 T. 732.739.6444 | F. 732.739.0451

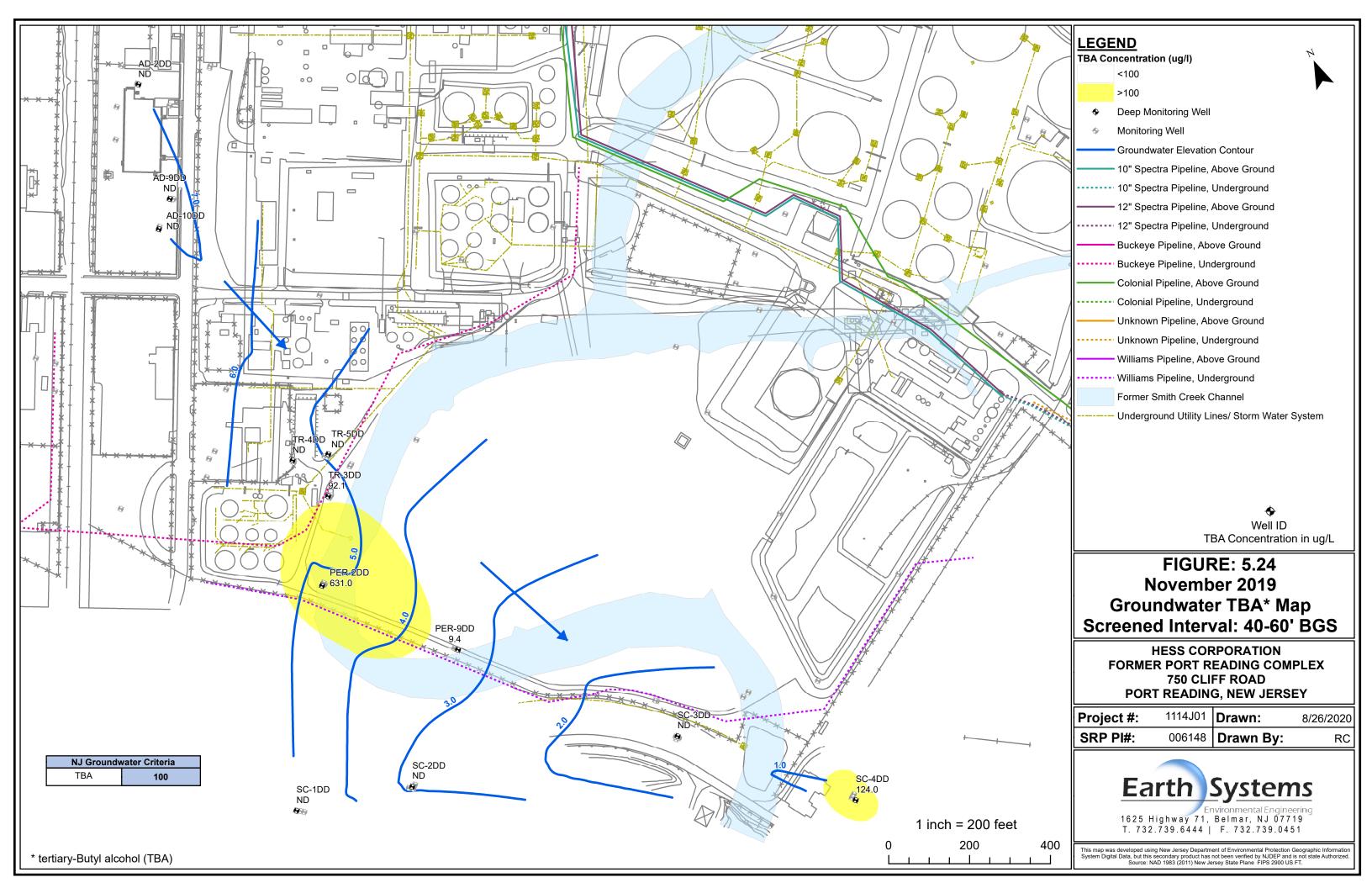


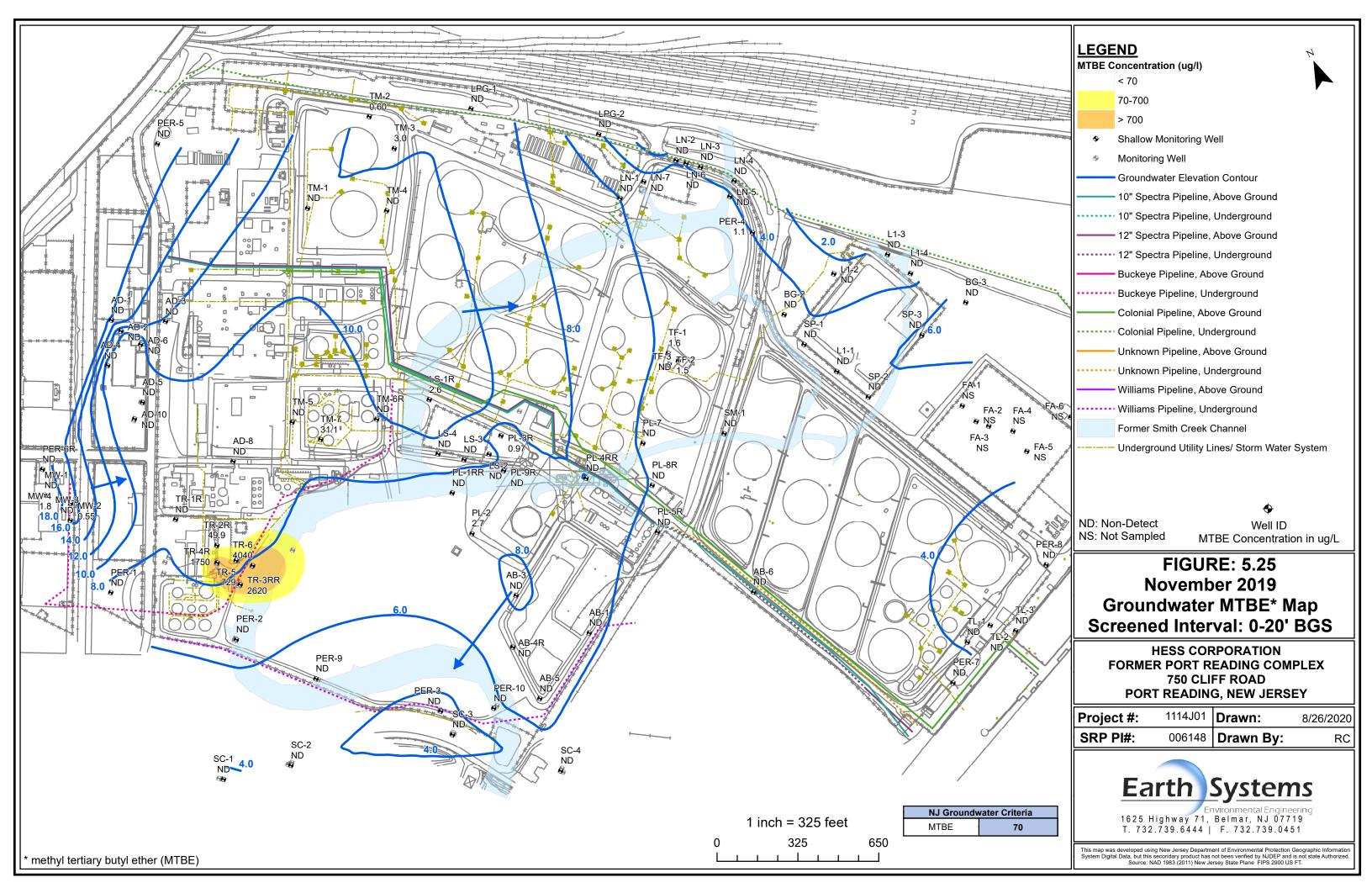


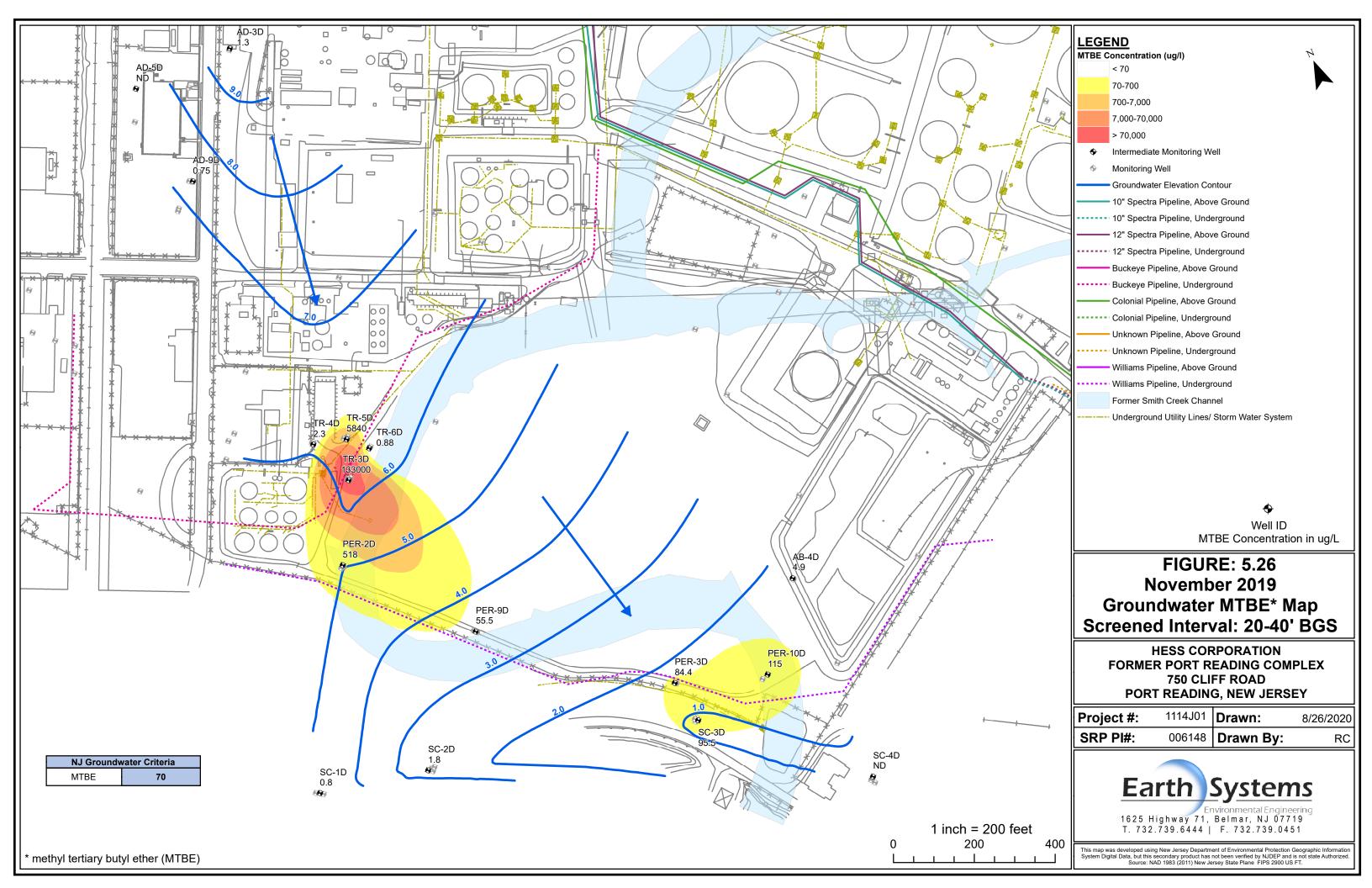


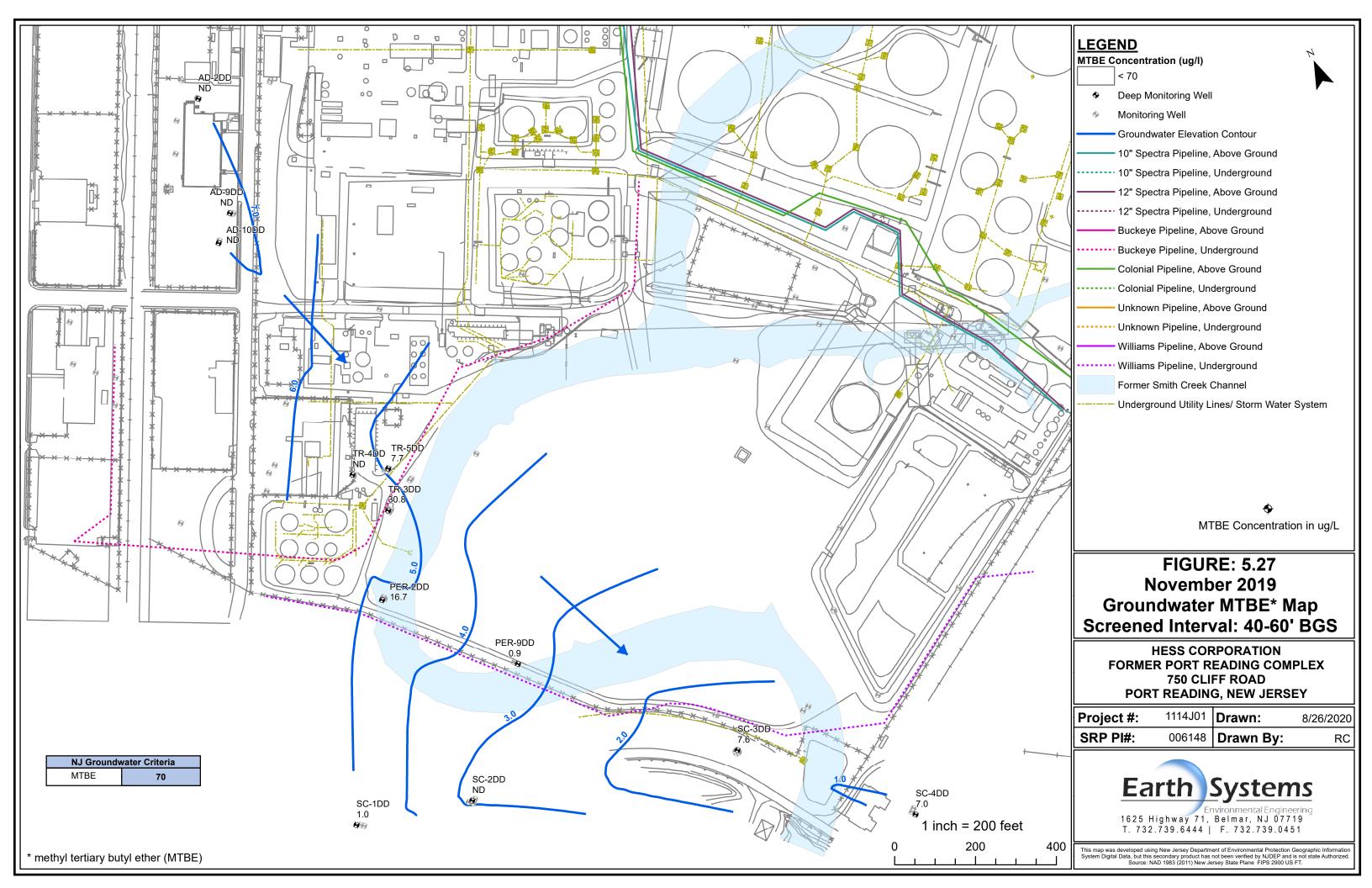


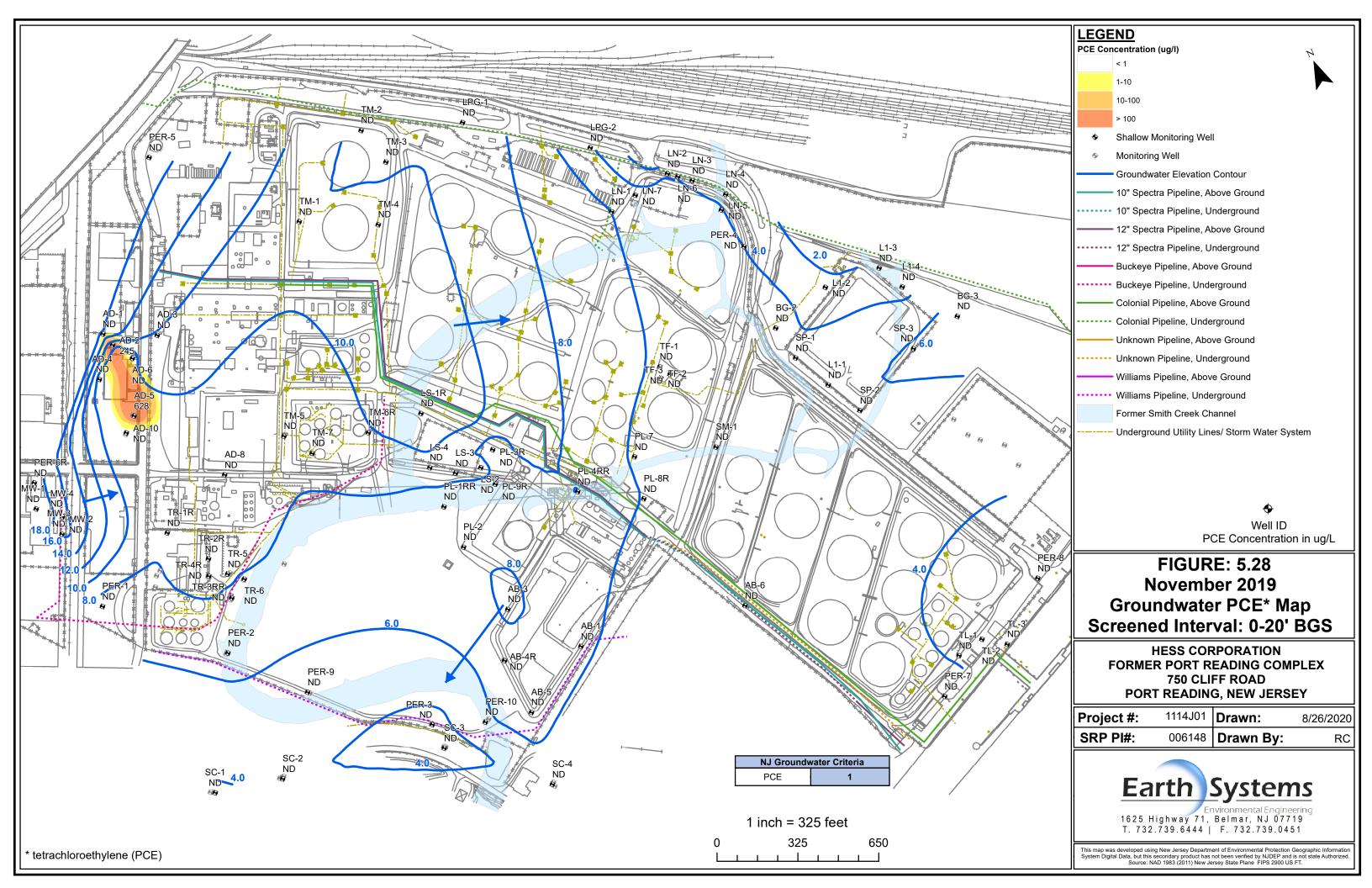


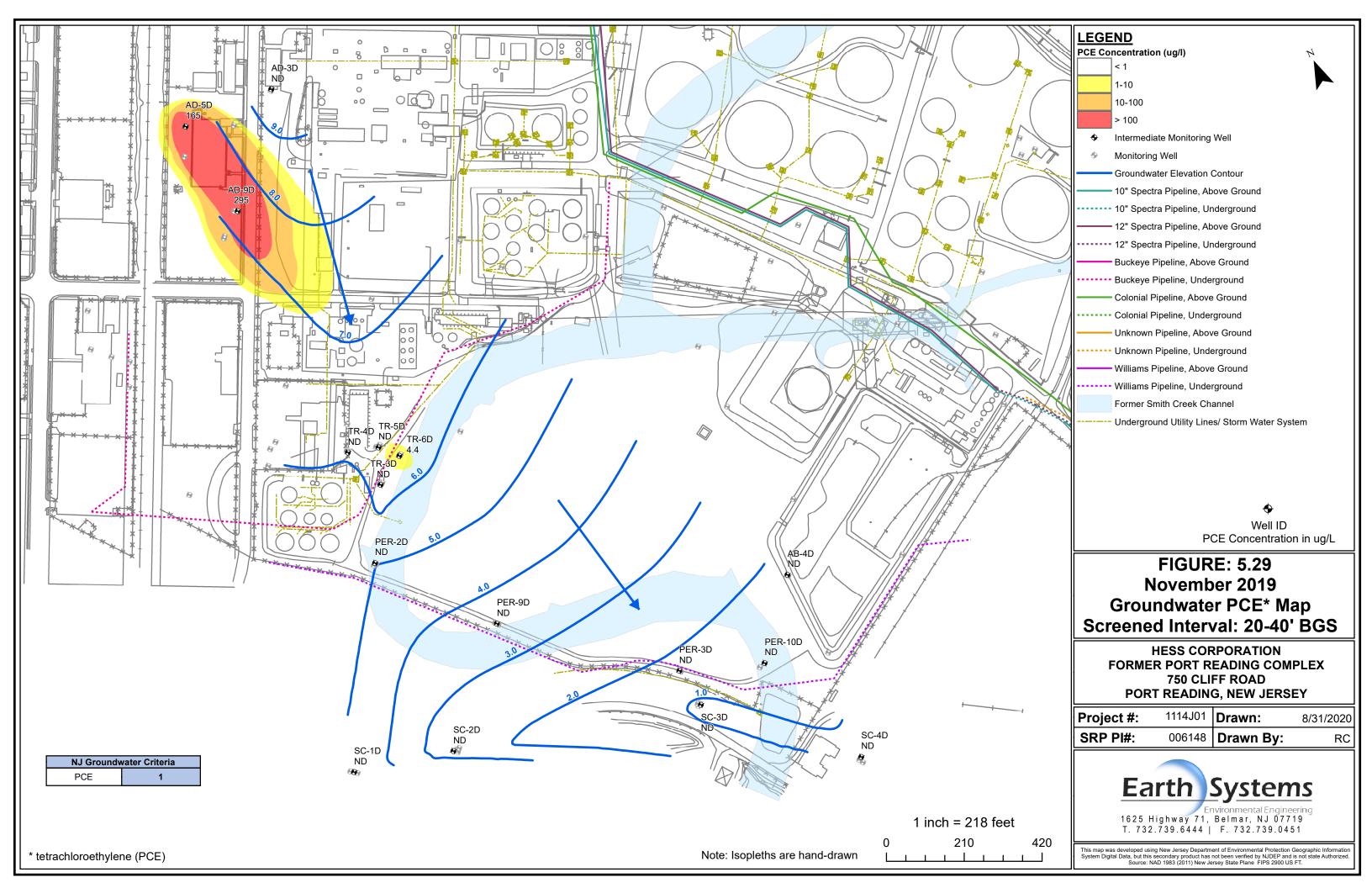


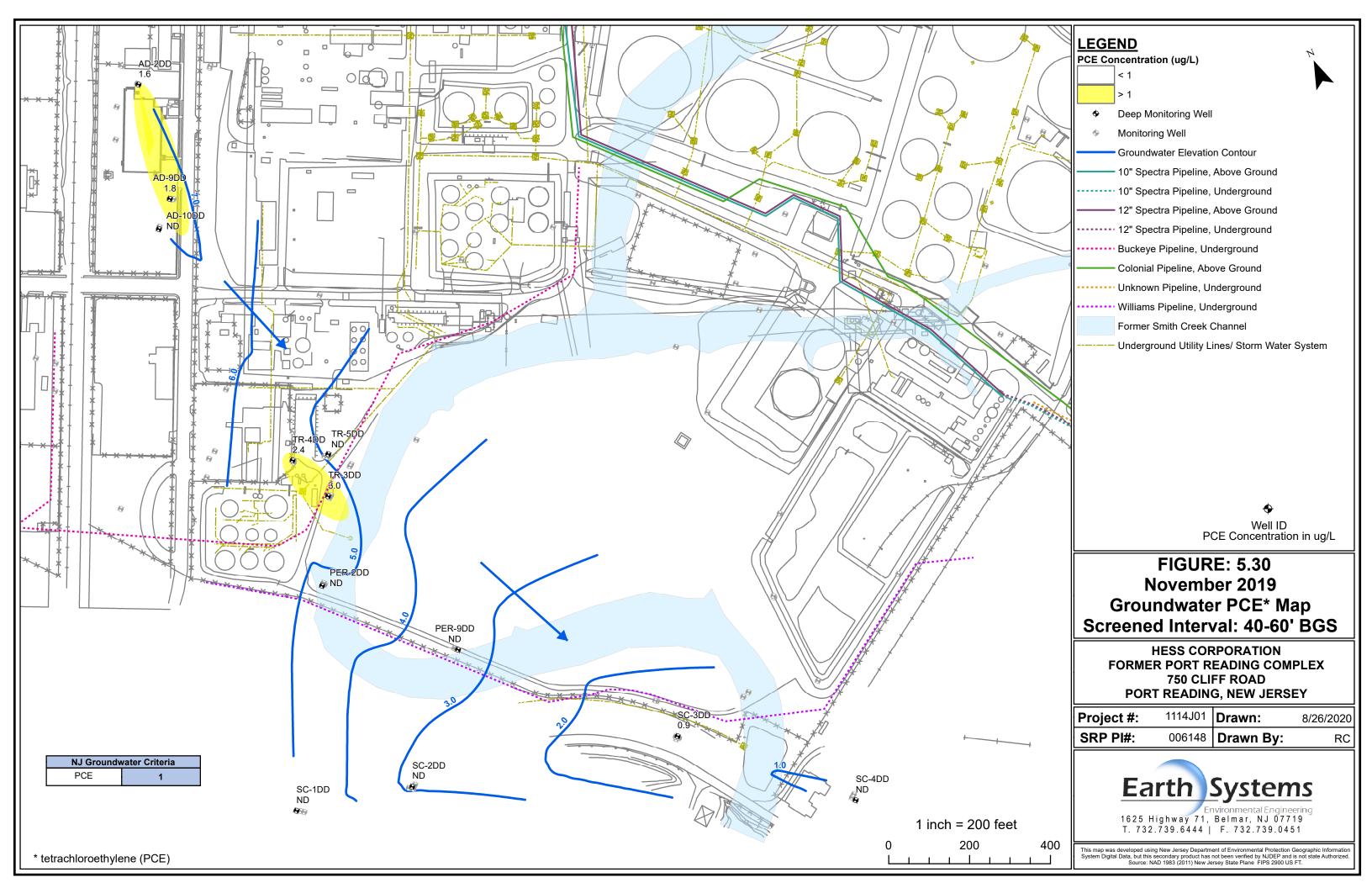


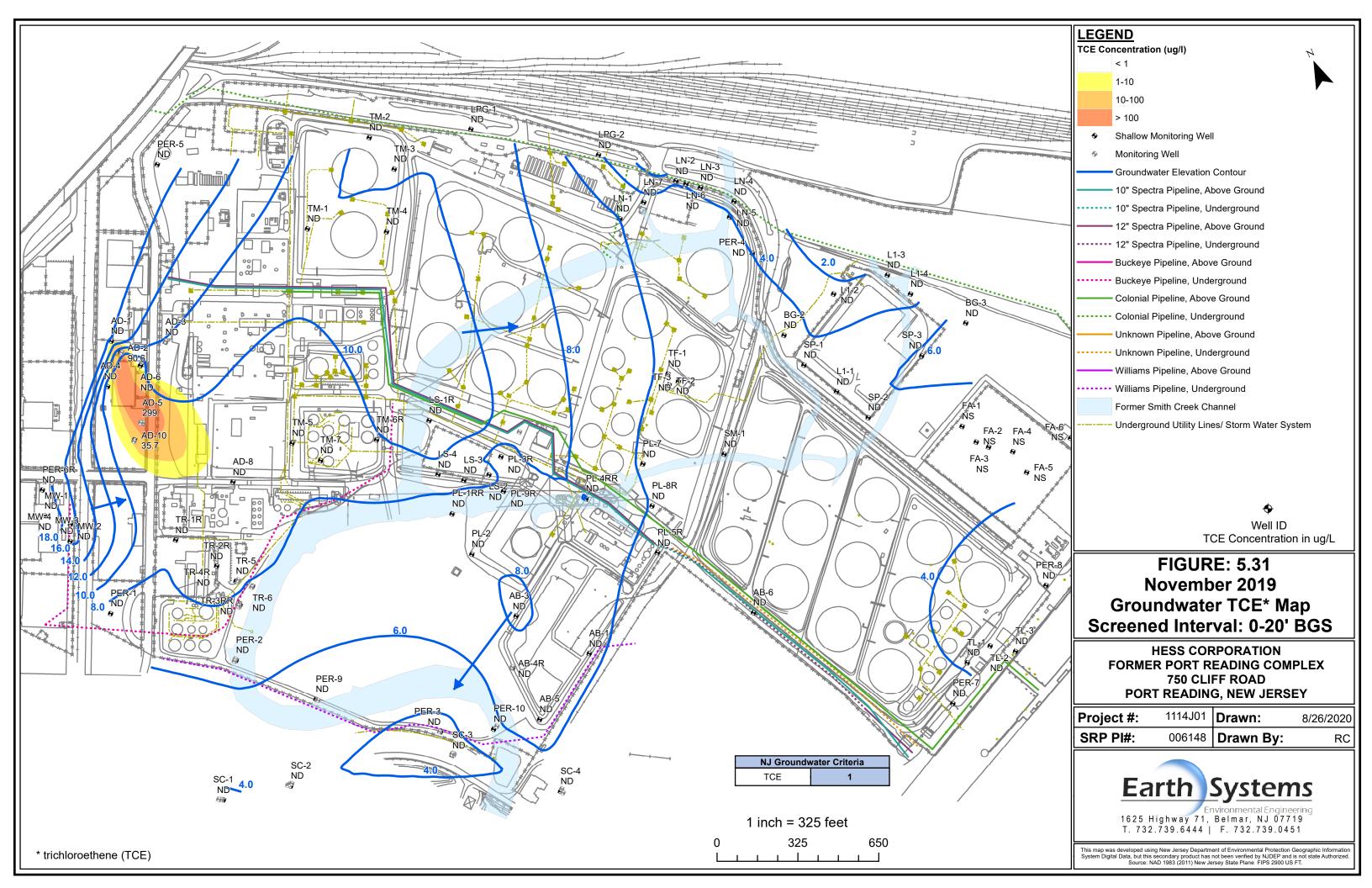


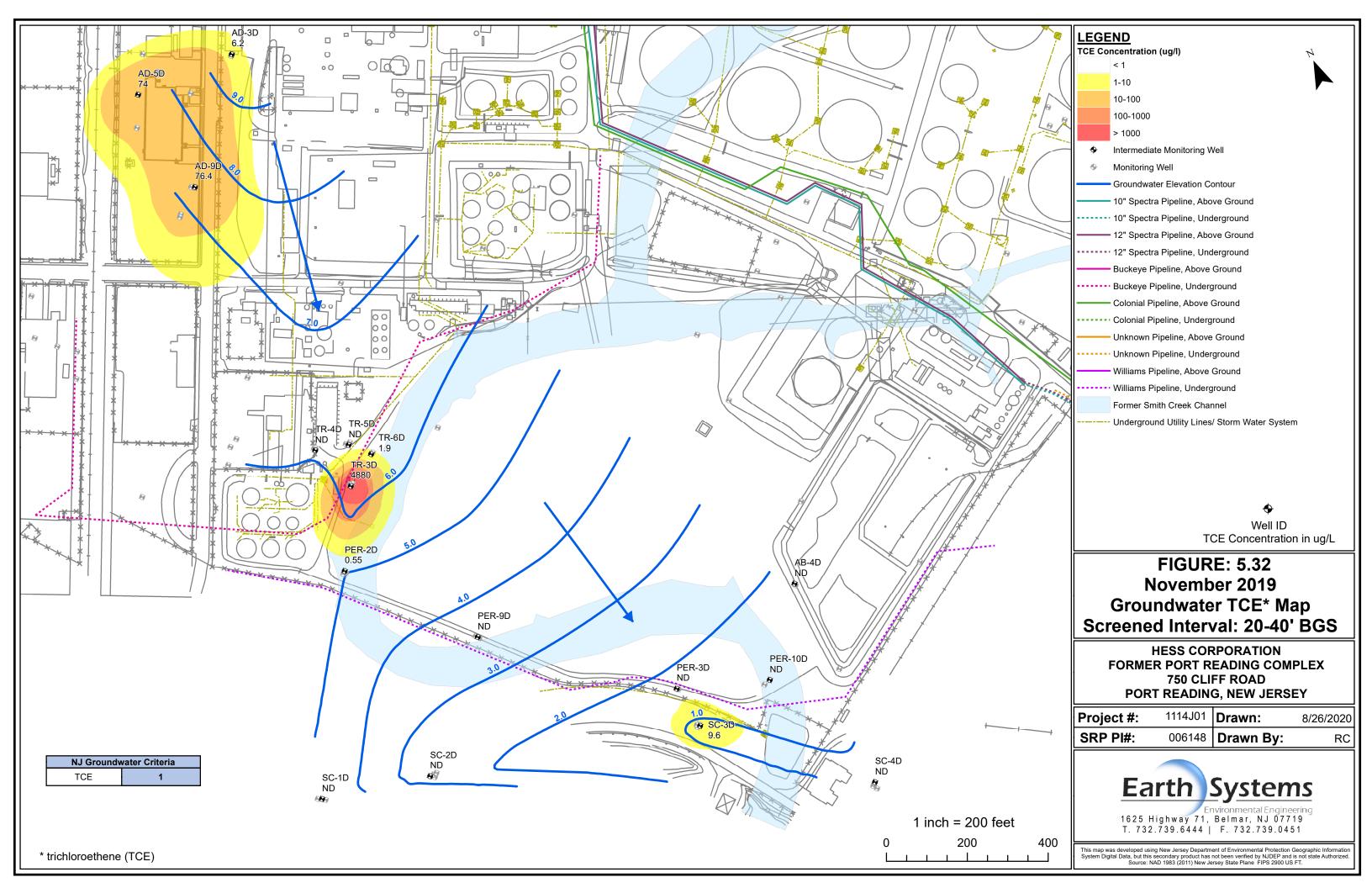


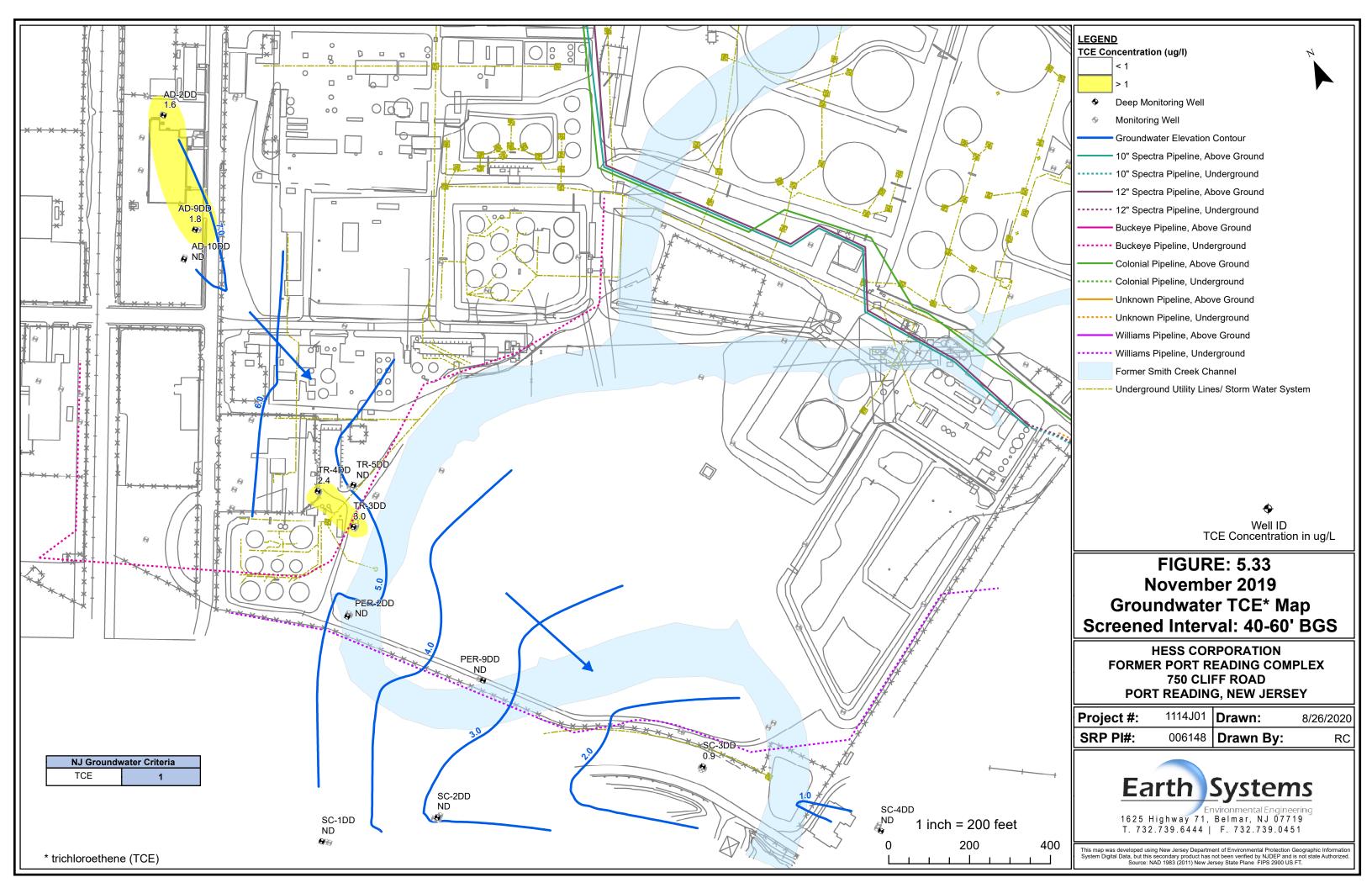


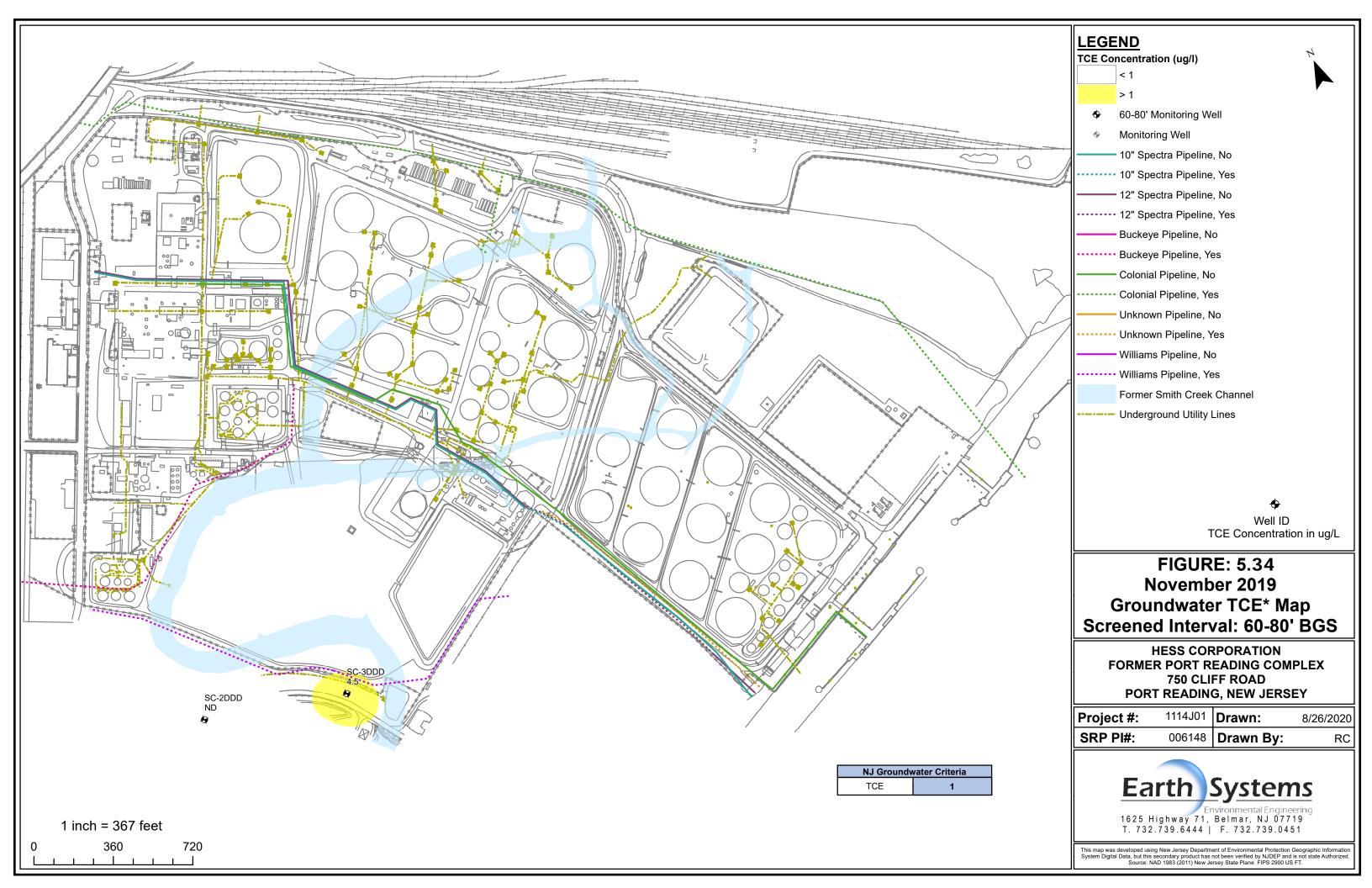


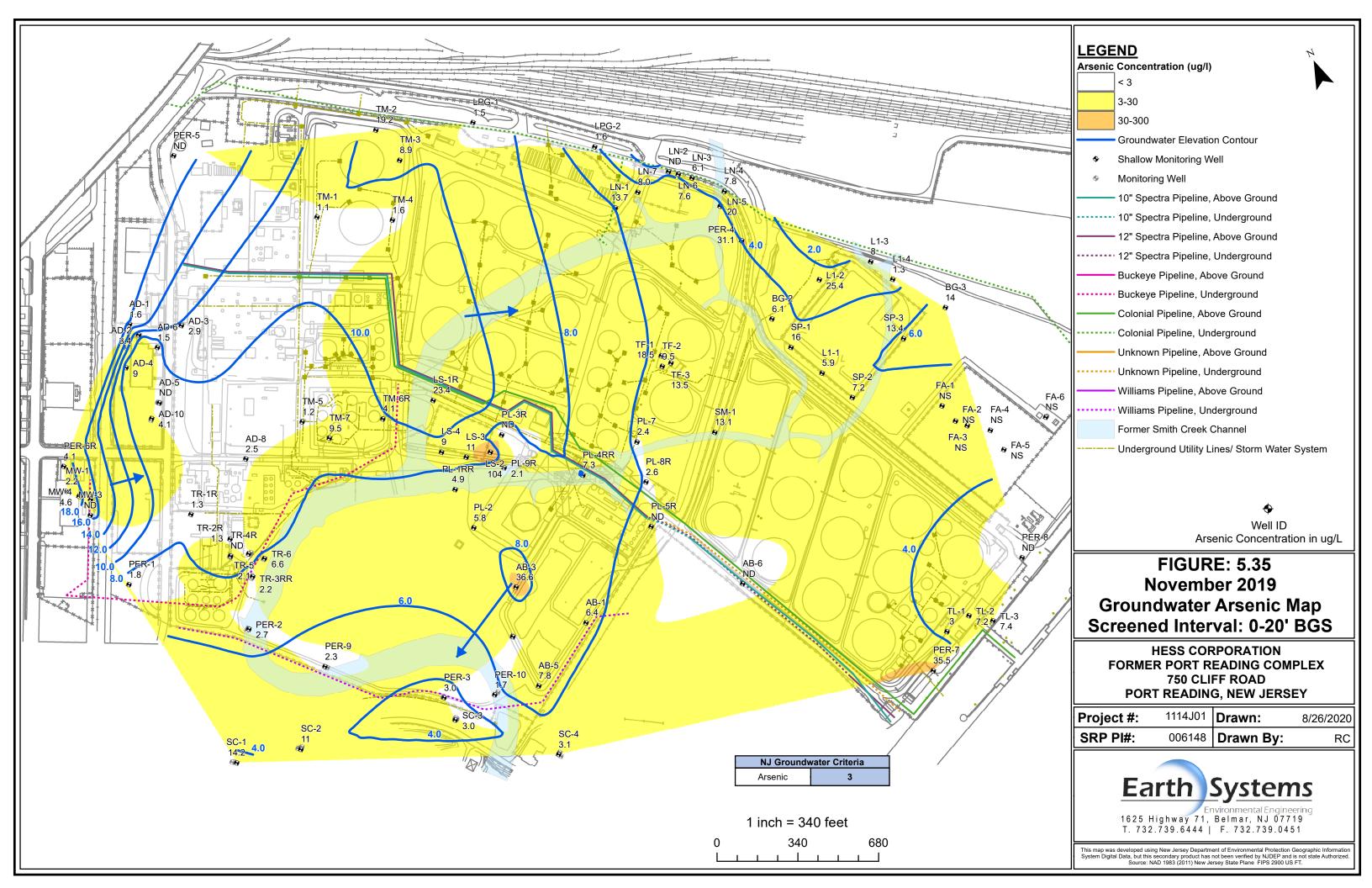


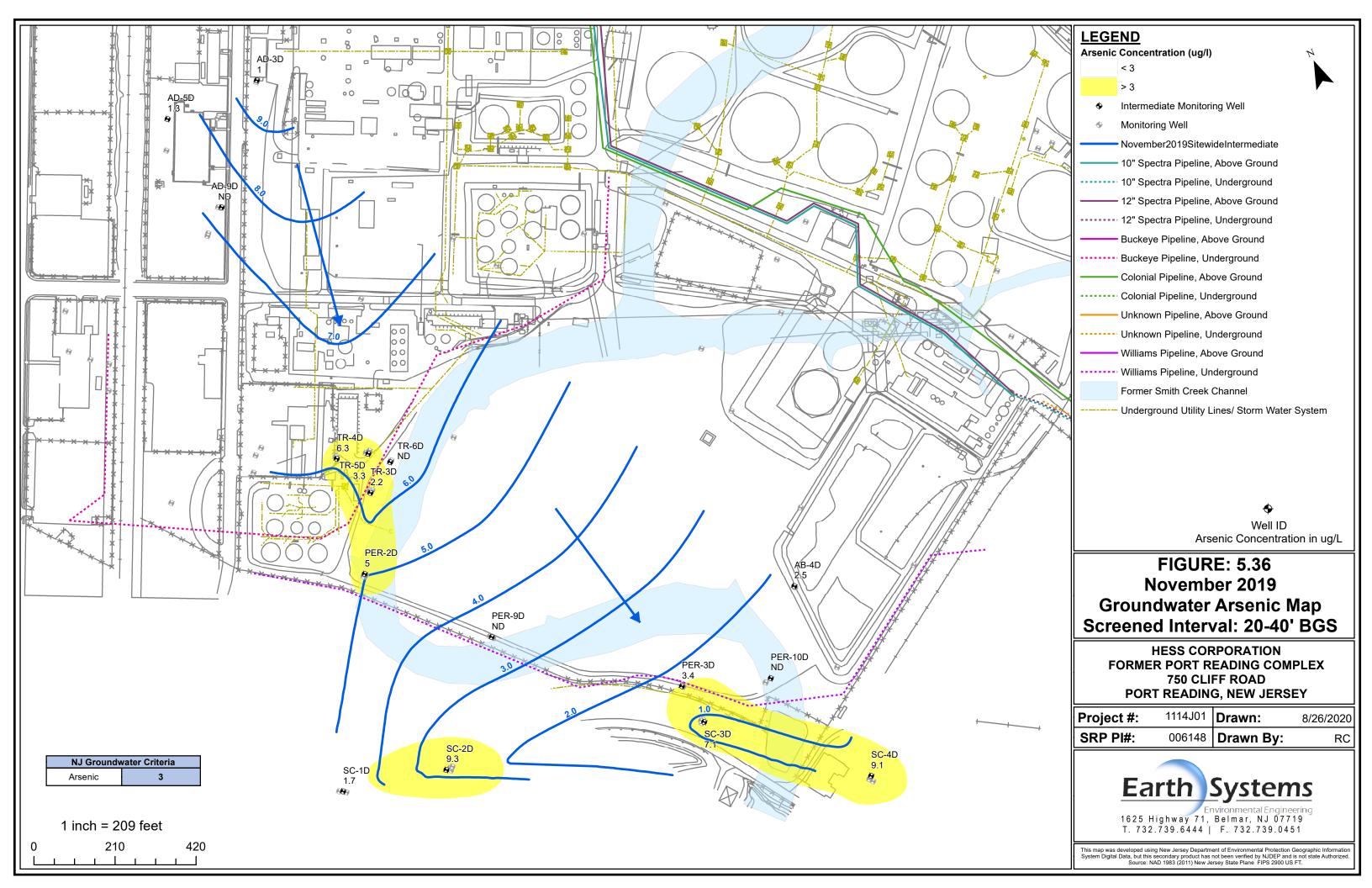


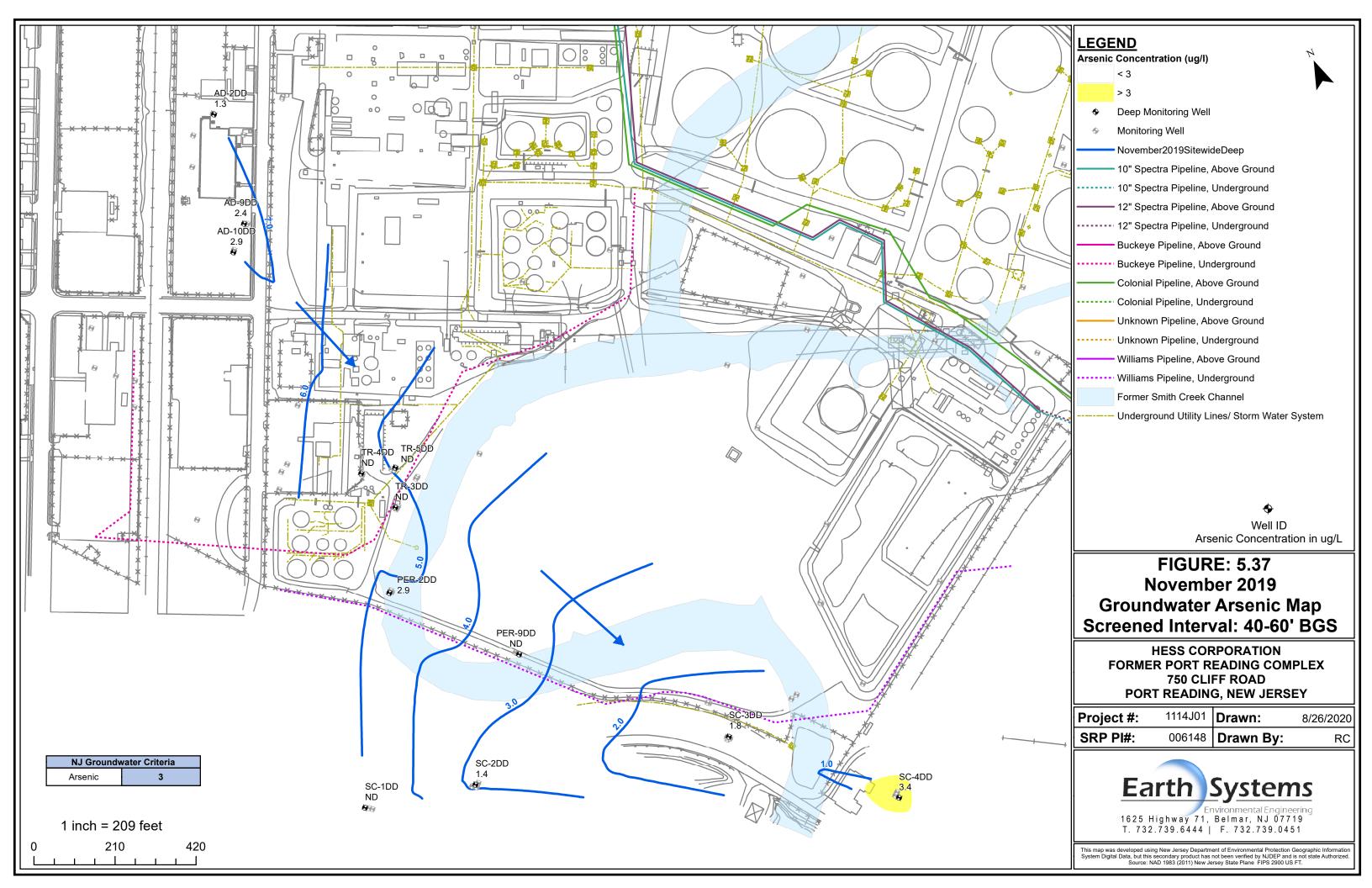


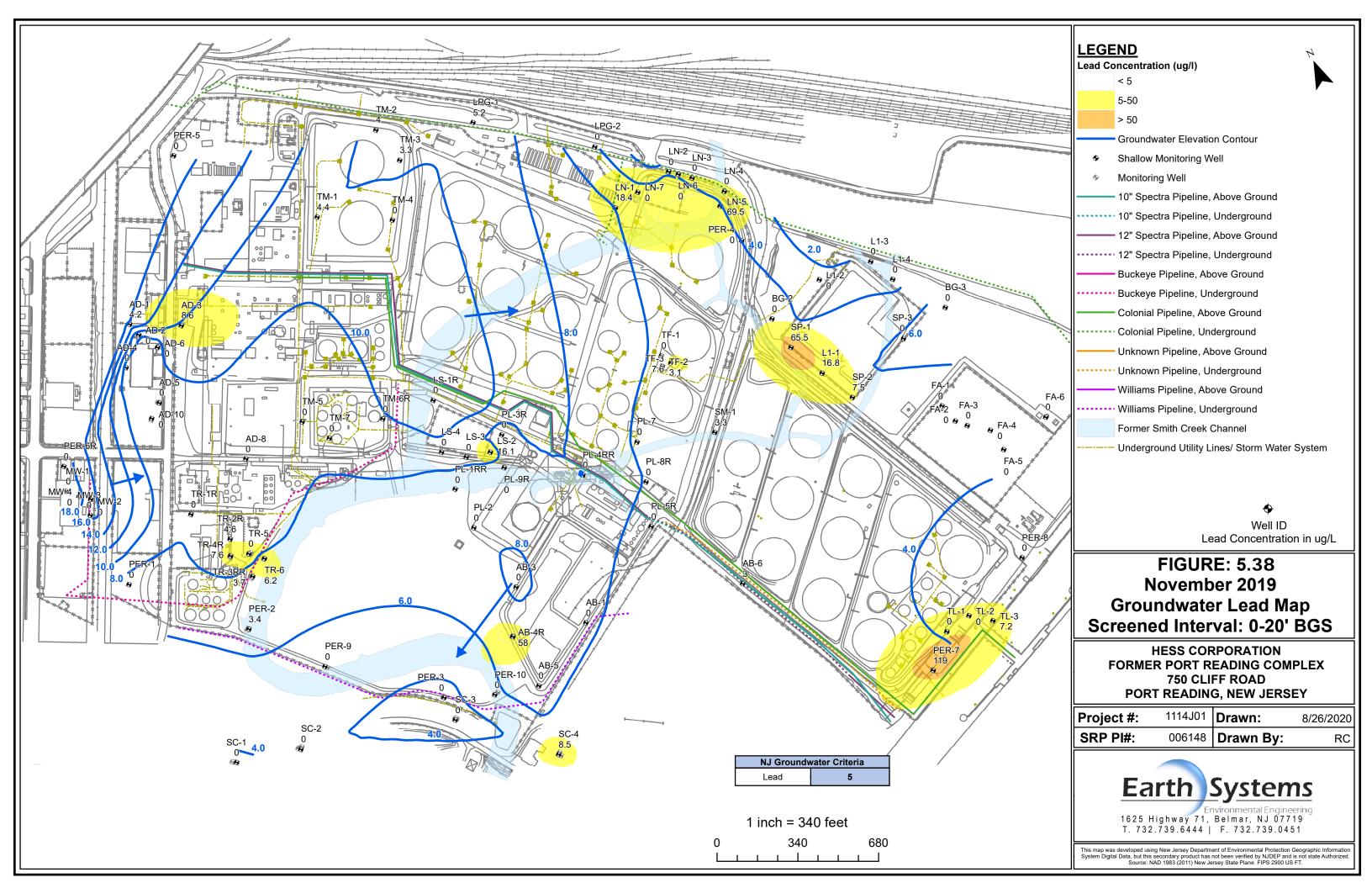












Groundwater Analytical Results AOC 3 - No. 1 Landfarm

Client Sample ID:			SP-1	SP-2	SP-3	
Lab Sample ID:		NJ Groundwater	JC98421-1	JC98421-2	JC98421-3	
Date Sampled:		Criteria	11/11/2019	11/11/2019	11/11/2019	
Matrix:			Ground Water	Ground Water	Ground Water	
MS Volatiles (SW846 8260C)						
Acetone	ug/l	6000	ND (6.0)	15	ND (6.0)	
Benzene	ug/l	1	ND (0.43)	ND (0.43)	ND (0.43)	
Bromochloromethane	ug/l	-	ND (0.48)	ND (0.48)	ND (0.48)	
Bromodichloromethane	ug/l	1	ND (0.58)	ND (0.58)	ND (0.58)	
Bromoform	ug/l	4	ND (0.63)	ND (0.63)	ND (0.63)	
Bromomethane	ug/l	10	ND (1.6)	ND (1.6)	ND (1.6)	
2-Butanone (MEK)	ug/l	300	ND (6.9)	ND (6.9)	ND (6.9)	
Carbon disulfide	ug/l	700	ND (0.95)	ND (0.95)	ND (0.95)	
Carbon tetrachloride	ug/l	1	ND (0.55)	ND (0.55)	ND (0.55)	
Chlorobenzene	ug/l	50	ND (0.56)	ND (0.56)	ND (0.56)	
Chloroethane	ug/l	-	ND (0.73)	ND (0.73)	ND (0.73)	
Chloroform	ug/l	70	ND (0.50)	ND (0.50)	ND (0.50)	
Chloromethane	ug/l	-	ND (0.76)	ND (0.76)	ND (0.76)	
Cyclohexane	ug/l	-	ND (0.78)	ND (0.78)	ND (0.78)	
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)	ND (1.2)	
Dibromochloromethane 1.2-Dibromoethane	ug/l	0.03	ND (0.56)	ND (0.56)	ND (0.56)	
,	ug/l	1 11	ND (0.48)	ND (0.48)	ND (0.48)	
1,2-Dichlorobenzene	ug/l	600 600	ND (0.53)	ND (0.53)	ND (0.53)	
1,3-Dichlorobenzene 1.4-Dichlorobenzene	ug/l ug/l	75	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	
Dichlorodifluoromethane	ug/l	1000	ND (0.51)	ND (0.51)	ND (0.51)	
1.1-Dichloroethane	ug/l	50	ND (0.57)	ND (0.57)	ND (0.57)	
1.2-Dichloroethane	ug/l	2	ND (0.60)	ND (0.60)	ND (0.60)	
1,1-Dichloroethene	ug/l	1	ND (0.59)	ND (0.59)	ND (0.59)	
cis-1,2-Dichloroethene	ug/l	70	ND (0.51)	1.3	ND (0.51)	
trans-1,2-Dichloroethene	ug/l	100	ND (0.54)	ND (0.54)	ND (0.54)	
1,2-Dichloropropane	ug/l	1	ND (0.51)	ND (0.51)	ND (0.51)	
cis-1,3-Dichloropropene	ug/l	-	ND (0.47)	ND (0.47)	ND (0.47)	
trans-1,3-Dichloropropene	ug/l	-	ND (0.43)	ND (0.43)	ND (0.43)	
Ethylbenzene	ug/l	700	ND (0.60)	ND (0.60)	ND (0.60)	
Freon 113	ug/l	20000	ND (1.9)	ND (1.9)	ND (1.9)	
2-Hexanone	ug/l	40	ND (2.0)	ND (2.0)	ND (2.0)	
Isopropylbenzene	ug/l	700	ND (0.65)	ND (0.65)	ND (0.65)	
Methyl Acetate	ug/l	7000	ND (0.80)	ND (0.80)	ND (0.80)	
Methylcyclohexane	ug/l	_	ND (0.60)	ND (0.60)	ND (0.60)	
Methyl Tert Butyl Ether	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)	ND (1.9)	ND (1.9)	
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	
Styrene	ug/l	100	ND (0.70)	ND (0.70)	ND (0.70)	
Tert Butyl Alcohol	ug/l	100	ND (5.8)	ND (5.8)	ND (5.8)	
1,1,2,2-Tetrachloroethane	ug/l	1	ND (0.65)	ND (0.65)	ND (0.65)	
Tetrachloroethene	ug/l	1	ND (0.90)	ND (0.90)	ND (0.90)	
Toluene	ug/l	600	ND (0.53)	ND (0.53)	ND (0.53)	
1,2,3-Trichlorobenzene	ug/l	-	ND (0.50)	ND (0.50)	ND (0.50)	
1,2,4-Trichlorobenzene	ug/l	9	ND (0.50)	ND (0.50)	ND (0.50)	
1,1,1-Trichloroethane	ug/l	30	ND (0.54)	ND (0.54)	ND (0.54)	
1,1,2-Trichloroethane	ug/l	3	ND (0.53)	ND (0.53)	ND (0.53)	
Trichloroethene	ug/l	1	ND (0.53)	ND (0.53)	ND (0.53)	
Trichlorofluoromethane	ug/l	2000	ND (0.84)	ND (0.84)	ND (0.84)	
Vinyl chloride	ug/l	1	ND (0.79)	ND (0.79)	ND (0.79)	
m,p-Xylene	ug/l	-	ND (0.78)	ND (0.78)	ND (0.78)	
o-Xylene	ug/l	-	ND (0.59)	ND (0.59)	ND (0.59)	
Xylene (total)	ug/l	1000	ND (0.59)	ND (0.59)	ND (0.59)	
MS Volatile TIC						
Total TIC, Volatile	ug/l	-	0	0	0	
MS Semi-volatiles (SW846 827	0D)					
Acenaphthene	ug/l	400	ND (0.19)	ND (0.21)	ND (0.18)	
Acenaphthylene	ug/l		ND (0.14)	ND (0.15)	ND (0.13)	

Groundwater Analytical Results AOC 3 - No. 1 Landfarm

Client Sample ID:			SP-1	SP-2	SP-3
Lab Sample ID:		NJ Groundwater	JC98421-1	JC98421-2	JC98421-3
Date Sampled:		Criteria	11/11/2019	11/11/2019	11/11/2019
Matrix:			Ground Water	Ground Water	Ground Water
Acetophenone	ug/l	700	ND (0.21)	ND (0.23)	ND (0.20)
Anthracene	ug/l	2000	ND (0.22)	ND (0.23)	ND (0.20)
Atrazine	ug/l	3	ND (0.46)	ND (0.50)	ND (0.43)
Benzaldehyde	ug/l	-	ND (0.29)	ND (0.32)	ND (0.28)
Benzo(g,h,i)perylene	ug/l	-	ND (0.35)	ND (0.38)	ND (0.32)
4-Bromophenyl phenyl ether	ug/l	-	ND (0.41)	ND (0.45)	ND (0.38)
Butyl benzyl phthalate	ug/l	100	ND (0.47)	ND (0.51)	ND (0.44)
1,1'-Biphenyl	ug/l	400	ND (0.22)	ND (0.24)	ND (0.20)
2-Chloronaphthalene	ug/l	600	ND (0.24)	ND (0.26)	ND (0.22)
4-Chloroaniline	ug/l	30	ND (0.35)	ND (0.38)	ND (0.32)
Carbazole	ug/l	-	ND (0.23)	ND (0.25)	ND (0.22)
Caprolactam	ug/l	4000	ND (0.66)	ND (0.72)	ND (0.62)
Chrysene	ug/l	5	ND (0.18)	ND (0.20)	ND (0.17)
bis(2-Chloroethoxy)methane	ug/l	-	ND (0.28)	ND (0.31)	ND (0.26)
bis(2-Chloroethyl)ether	ug/l	7	ND (0.25)	ND (0.28)	ND (0.24)
2,2'-Oxybis(1-chloropropane)	ug/l	300	ND (0.41)	ND (0.45)	ND (0.38)
4-Chlorophenyl phenyl ether	ug/l	-	ND (0.37)	ND (0.41)	ND (0.35)
2,4-Dinitrotoluene	ug/l	-	ND (0.56)	ND (0.61)	ND (0.53)
2,6-Dinitrotoluene	ug/l	-	ND (0.49)	ND (0.53)	ND (0.45)
3,3'-Dichlorobenzidine	ug/l	30	ND (0.52)	ND (0.56)	ND (0.48)
1,4-Dioxane	ug/l	0.4	-	-	-
Dibenzofuran	ug/l	-	ND (0.22)	ND (0.24)	ND (0.21)
Di-n-butyl phthalate	ug/l	700	ND (0.51)	ND (0.55)	ND (0.47)
Di-n-octyl phthalate	ug/l	100	ND (0.24)	ND (0.26)	ND (0.22)
Diethyl phthalate	ug/l	6000	ND (0.27)	ND (0.29)	ND (0.25)
Dimethyl phthalate	ug/l	-	ND (0.22)	ND (0.24)	ND (0.21)
bis(2-Ethylhexyl)phthalate	ug/l	3	ND (1.7)	ND (1.8)	ND (1.6)
Fluoranthene	ug/l	300 300	ND (0.17)	ND (0.19)	ND (0.16)
Fluorene Hexachlorocyclopentadiene	ug/l ug/l	40	ND (0.17) ND (2.8)	ND (0.19) ND (3.1)	ND (0.16) ND (2.6)
Hexachlorocyclopentadiene Hexachloroethane		7	ND (2.8)	ND (3.1)	ND (2.0)
Isophorone	ug/l ug/l	40	ND (0.40)	ND (0.43)	ND (0.37)
2-Methylnaphthalene	ug/l	30	ND (0.28)	ND (0.31)	ND (0.20)
2-Nitroaniline	ug/l	-	ND (0.21)	ND (0.23)	ND (0.26)
3-Nitroaniline	ug/l	<u> </u>	ND (0.28)	ND (0.43)	ND (0.37)
4-Nitroaniline	ug/l	-	ND (0.45)	ND (0.49)	ND (0.42)
Naphthalene	ug/l	300	ND (0.44)	0.33 J	ND (0.42)
Nitrobenzene	ug/l	6	ND (0.66)	ND (0.71)	ND (0.61)
N-Nitroso-di-n-propylamine	ug/l	10	ND (0.49)	ND (0.53)	ND (0.46)
N-Nitrosodiphenylamine	ug/l	10	ND (0.23)	ND (0.25)	ND (0.21)
Phenanthrene	ug/l	-	ND (0.18)	ND (0.19)	ND (0.17)
Pyrene	ug/l	200	ND (0.22)	ND (0.24)	ND (0.21)
1,2,4,5-Tetrachlorobenzene	ug/l	-	ND (0.38)	ND (0.41)	ND (0.35)
MS Semi-volatiles (SW846 827			_ (3.33)	_ ()	(5,00)
Benzo(a)anthracene	ug/l	0.1	ND (0.023) b	ND (0.025) b	ND (0.022) b
Benzo(a)pyrene	ug/l	0.1	ND (0.034)	ND (0.037)	ND (0.032)
Benzo(b)fluoranthene	ug/l	0.2	ND (0.044)	ND (0.048)	ND (0.041)
Benzo(k)fluoranthene	ug/l	0.5	ND (0.051)	ND (0.056)	ND (0.048)
Dibenzo(a,h)anthracene	ug/l	0.3	ND (0.051)	ND (0.056)	ND (0.048)
Hexachlorobenzene	ug/l	0.02	0.0178	0.0183	ND (0.011)
Hexachlorobutadiene	ug/l	1	ND (0.051)	ND (0.056)	ND (0.048)
ndeno(1,2,3-cd)pyrene	ug/l	0.2	ND (0.051)	ND (0.056)	ND (0.048)
1,4-Dioxane	ug/l	0.4	ND (0.051)	ND (0.056)	ND (0.048)
MS Semi-volatile TIC					<u> </u>
Total TIC, Semi-Volatile	ug/l	-	0	6.6 J	23 J
Metals Analysis					
Aluminum	ug/l	200	14300	3220	<200
Antimony	ug/l	6	<6.0	<6.0	<6.0
Arsenic	ug/l	3	16	7.2	13.4

Hess Corporation Former Port Reading Complex 750 Cliff Road

Port Reading NJ

Table 5.1

Groundwater Analytical Results

AOC 3 - No. 1 Landfarm

Client Sample ID:			SP-1	SP-2	SP-3
Lab Sample ID:		NJ Groundwater	JC98421-1	JC98421-2	JC98421-3
Date Sampled:		Criteria	11/11/2019	11/11/2019	11/11/2019
Matrix:			Ground Water	Ground Water	Ground Water
Barium	ug/l	6000	<200	<200	<200
Beryllium	ug/l	1	<1.0	<1.0	<1.0
Cadmium	ug/l	4	<3.0	<3.0	<3.0
Calcium	ug/l	-	<5000	5330	21900
Chromium	ug/l	70	33.3	<10	<10
Cobalt	ug/l	100	<50	<50	<50
Copper	ug/l	1300	53	13.5	<10
on ug/I		300	34100	23700	44400
Lead	ug/l	5	65.5	7.5	<3.0
Magnesium	ug/l	-	<5000	<5000	10900
Manganese	ug/l	50	224	105	570
Mercury	ug/l	2	0.97	0.55	0.49
Nickel	ug/l	100	23.6	<10	<10
Potassium	ug/l	-	<10000	<10000	<10000
Selenium	ug/l	40	<10	<10	<10
Silver	ug/l	40	<10	<10	<10
Sodium	ug/l	50000	18500	38800	10700
Thallium	ug/l	2	<1.0	<1.0	<1.0
Vanadium	ug/l	-	<50	<50	<50
Zinc	ug/l	2000	108	51.8	<20
General Chemistry					
Nitrogen, Ammonia	ug/l	3000	<200	<200	510

Footnotes:

- a Associated CCV outside of control limits low.
- b Associated CCV outside of control limits high, sample was ND.
- c This compound in BS is outside in house QC limits bias high.
- d Associated CCV outside of control limits high, sample was ND.
- This compound in BS is outside in house QC limits bias high.
- e Associated CCV and BS outside of control limits high, sample was ND.
- f This compound in BS is outside in house QC limits bias high.
- Associated CCV outside of control limits high, sample was ND.
- g Associated CCV,BS,BSD outside of control limits high, sample was ND.
- h Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Sample was ND.
- i Estimated value, due to corresponding failure in the batch associated CCV.
- j Associated CCV outside of control limits high.
- Estimated value, due to corresponding failure in the batch associated CCV.
- \ensuremath{k} Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding failure in the batch associated CCV.
- I Result confirmed by reextraction outside of the holding time.
- m Sample reextracted outside of the holding time for confirmation.
- n There is no sample left to reextract for confirmation.
- o Elevated sample detection limit due to difficult sample matrix.
- p Elevated detection limit due to dilution required for high interfering element.
- $\ensuremath{\mathsf{q}}$ Elevated detection limit due to dilution required for matrix interference.

AOC 5 - Aeration Basins **Groundwater Analytical Results**

Client Sample ID:		AB-1	AB-2R	AB-3	AB-4R	AB-4D	AB-5
Lab Sample ID:	NJ Groundwater	JC97978-5	JC98148-11	JC97978-3	JC97978-1	JC97978-2	JC97978-4
Date Sampled:	Criteria	11/4/2019	11/6/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019
Matrix:		Ground Water					

Date Sampled:		Criteria	11/4/2019	11/6/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019	
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	
MS Volatiles (SW846 8260C)									
Acetone	ug/l	6000	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	
Benzene	ug/l	1	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	
Bromochloromethane	ug/l	1	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.43)	
Bromodichloromethane	ug/l	1	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	
	Ť	4	ND (0.63)	ND (0.63)	` '	` '	ND (0.63)	ND (0.63)	
Bromoform Bromomethane	ug/l ug/l	10	ND (0.63)	` ,	ND (0.63)	ND (0.63)	` ,	` ′	
2-Butanone (MEK)	ug/l	300	ND (1.0) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	
Carbon disulfide	ug/l	700	ND (0.9)	ND (0.95)	ND (0.9)	ND (0.95)	ND (0.95)	ND (0.95)	
Carbon tetrachloride	ug/l	1	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	
Chlorobenzene		50	` ′	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.56)	
	ug/l	-	ND (0.56)	` '	` '	` '	` '	, ,	
Chloroethane	ug/l		ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	
Chloroform	ug/l	70	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	
Chloromethane	ug/l		ND (0.76) a	ND (0.76)	ND (0.76) a	ND (0.76) a	ND (0.76) a	ND (0.76) a	
Cyclohexane	ug/l	-	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	
Dibromochloromethane	ug/l	1	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	
1,2-Dibromoethane	ug/l	0.03	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	
1,2-Dichlorobenzene	ug/l	600	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	
1,3-Dichlorobenzene	ug/l	600	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	
1,4-Dichlorobenzene	ug/l	75	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	
Dichlorodifluoromethane	ug/l	1000	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	
1,1-Dichloroethane	ug/l	50	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	
1,2-Dichloroethane	ug/l	2	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	
1,1-Dichloroethene	ug/l	1	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	
cis-1,2-Dichloroethene	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	
trans-1,2-Dichloroethene	ug/l	100	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	
1,2-Dichloropropane	ug/l	1	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	
cis-1,3-Dichloropropene	ug/l	-	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	
trans-1,3-Dichloropropene	ug/l	-	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	
Ethylbenzene	ug/l	700	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	
Freon 113	ug/l	20000	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	
2-Hexanone	ug/l	40	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	
Isopropylbenzene	ug/l	700	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	
Methyl Acetate	ug/l	7000	ND (0.80)	ND (0.80) ^a	ND (0.80)	ND (0.80)	ND (0.80)	ND (0.80)	
Methylcyclohexane	ug/l	-	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	
Methyl Tert Butyl Ether	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	4.9	ND (0.51)	
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
Styrene	ug/l	100	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	
Tert Butyl Alcohol	ug/l	100	ND (5.8)	ND (5.8)	ND (5.8)	ND (5.8)	46.9	ND (5.8)	
1,1,2,2-Tetrachloroethane	ug/l	1	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	
Tetrachloroethene	ug/l	1	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	
Toluene	ug/l	600	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	
1,2,3-Trichlorobenzene	ug/l	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	
1,2,4-Trichlorobenzene	ug/l	9	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	
1,1,1-Trichloroethane	ug/l	30	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	
1,1,2-Trichloroethane	ug/l	3	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	
Trichloroethene	ug/l	1	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	
Trichlorofluoromethane	ug/l	2000	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	
Vinyl chloride	ug/l	1	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	
m,p-Xylene	ug/l	-	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	
o-Xylene	ug/l	-	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	
Xylene (total)	ug/l	1000	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	
	•	•	•	•	•	•	•	•	
MS Volatile TIC									
Total TIC, Volatile	ug/l	-	0	6.7 J	0	0	139 J	0	

MS Volatile TIC											
Total TIC, Volatile	ug/l	-	0	6.7 J	0	0	139 J	0			

AOC 5 - Aeration Basins Groundwater Analytical Results

AB-2R

AB-3

AB-4R

AB-4D

AB-5

AB-1

Client Sample ID:

Benzo(a)pyrene

Benzo(b)fluoranthene

Benzo(k)fluoranthene

Hexachlorobenzene

Hexachlorobutadiene

1,4-Dioxane

Indeno(1,2,3-cd)pyrene

Dibenzo(a,h)anthracene

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

0.1

0.2

0.5

0.3

0.02

0.2

0.4

ND (0.033)

ND (0.043)

ND (0.049)

ND (0.049)

ND (0.011)

ND (0.049)

ND (0.049)

ND (0.049)

ND (0.032)

ND (0.041)

ND (0.048)

ND (0.048)

ND (0.011)

ND (0.048)

ND (0.048)

0.0554 J

ND (0.033)

ND (0.043)

ND (0.050)

ND (0.050)

ND (0.011)

ND (0.050)

ND (0.050)

0.0780 J

ND (0.032)

ND (0.041)

ND (0.048)

ND (0.048)

0.0176

ND (0.048)

ND (0.048)

ND (0.048)

ND (0.032)

ND (0.041)

ND (0.048)

ND (0.048)

ND (0.048)

ND (0.048)

0.936

ND (0.011)

ND (0.032)

ND (0.042)

ND (0.049)

ND (0.049)

ND (0.011)

ND (0.049)

ND (0.049)

ND (0.049)

Lab Sample ID:		NJ Groundwater	JC97978-5	JC98148-11	JC97978-3	JC97978-1	JC97978-2	JC97978-4
Date Sampled:		Criteria	11/4/2019	11/6/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
MS Semi-volatiles (SW846 827	'0D)		·	L	L			
Acenaphthene	ug/l	400	ND (0.19)	ND (0.18)	ND (0.19)	0.91 J	0.37 J	ND (0.19)
Acenaphthylene	ug/l	-	ND (0.13)	ND (0.13)	ND (0.14)	ND (0.13)	ND (0.13)	ND (0.13)
Acetophenone	ug/l	700	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)
Anthracene	ug/l	2000	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)
Atrazine	ug/l	3	ND (0.44) ^b	ND (0.43)	ND (0.45) b	ND (0.43) b	ND (0.43) ^b	ND (0.43) b
Benzaldehyde	ug/l	-	ND (0.28)	ND (0.28)	ND (0.29)	ND (0.28)	ND (0.28)	ND (0.28)
Benzo(g,h,i)perylene	ug/l	-	ND (0.33)	ND (0.32)	ND (0.34)	ND (0.32)	ND (0.32)	ND (0.33)
4-Bromophenyl phenyl ether	ug/l	-	ND (0.40)	ND (0.38)	ND (0.40)	ND (0.38)	ND (0.38)	ND (0.39)
Butyl benzyl phthalate	ug/l	100	ND (0.45)	ND (0.44)	ND (0.46)	ND (0.44)	ND (0.44)	ND (0.44)
1,1'-Biphenyl	ug/l	400	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.21)
2-Chloronaphthalene	ug/l	600	ND (0.23)	ND (0.22)	ND (0.24)	ND (0.22)	ND (0.22)	ND (0.23)
4-Chloroaniline	ug/l	30	ND (0.33)	ND (0.32)	ND (0.34)	ND (0.32)	ND (0.32)	ND (0.33)
Carbazole	ug/l	-	ND (0.22)	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.22)	ND (0.22)
Caprolactam	ug/l	4000	ND (0.64)	ND (0.62) b	ND (0.65)	ND (0.62)	ND (0.62)	ND (0.63)
Chrysene	ug/l	5	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)
bis(2-Chloroethoxy)methane	ug/l	-	ND (0.27)	ND (0.26)	ND (0.28)	ND (0.26)	ND (0.26)	ND (0.27)
bis(2-Chloroethyl)ether	ug/l	7	ND (0.24)	ND (0.24)	ND (0.25)	ND (0.24)	ND (0.24)	ND (0.24)
2,2'-Oxybis(1-chloropropane)	ug/l	300	ND (0.40)	ND (0.38)	ND (0.40)	ND (0.38)	ND (0.38)	ND (0.39)
4-Chlorophenyl phenyl ether	ug/l	-	ND (0.36)	ND (0.35)	ND (0.37)	ND (0.35)	ND (0.35)	ND (0.36)
2,4-Dinitrotoluene	ug/l	-	ND (0.54)	ND (0.53) h	ND (0.55)	ND (0.53)	ND (0.53)	ND (0.54)
2,6-Dinitrotoluene	ug/l	-	ND (0.47)	ND (0.45)	ND (0.48)	ND (0.45)	ND (0.45)	ND (0.46)
3,3'-Dichlorobenzidine	ug/l	30	ND (0.50)	ND (0.48)	ND (0.51)	ND (0.48)	ND (0.48)	ND (0.49)
1,4-Dioxane	ug/l	0.4	-	-	-	-	-	-
Dibenzofuran	ug/l	-	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)
Di-n-butyl phthalate	ug/l	700	ND (0.49)	ND (0.47)	ND (0.50)	ND (0.47)	ND (0.47)	ND (0.48)
Di-n-octyl phthalate	ug/l		ND (0.23)	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.22)	ND (0.23)
Diethyl phthalate	ug/l	6000	ND (0.26)	ND (0.25)	ND (0.26)	ND (0.25)	ND (0.25)	ND (0.25)
Dimethyl phthalate	ug/l	-	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)
bis(2-Ethylhexyl)phthalate	ug/l	3	ND (1.6)	ND (1.6)	ND (1.7)	ND (1.6)	ND (1.6)	ND (1.6)
Fluoranthene	ug/l	300	ND (0.17)	ND (0.16)	0.19 J	0.20 J	ND (0.16)	ND (0.17)
Fluorene	ug/l	300	ND (0.17)	ND (0.16)	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.17)
Hexachlorocyclopentadiene	ug/l	40	ND (2.7)	ND (2.6)	ND (2.8)	ND (2.6)	ND (2.6)	ND (2.7)
Hexachloroethane	ug/l	7	ND (0.38)	ND (0.37)	ND (0.39)	ND (0.37)	ND (0.37)	ND (0.38)
Isophorone	ug/l	40	ND (0.27)	ND (0.26)	ND (0.28)	ND (0.26)	ND (0.26)	ND (0.27)
2-Methylnaphthalene	ug/l	30	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)
2-Nitroaniline	ug/l	-	ND (0.27)	ND (0.26)	ND (0.28)	ND (0.26)	ND (0.26)	ND (0.27)
3-Nitroaniline	ug/l	-	ND (0.38)	ND (0.37)	ND (0.39)	ND (0.37)	ND (0.37)	ND (0.38)
4-Nitroaniline	ug/l	-	ND (0.43)	ND (0.42)	ND (0.44)	ND (0.42)	ND (0.42)	ND (0.43)
Naphthalene	ug/l	300	ND (0.23)	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.22)	ND (0.23)
Nitrobenzene	ug/l	6	ND (0.63)	ND (0.61)	ND (0.64)	ND (0.61)	ND (0.61)	ND (0.62)
N-Nitroso-di-n-propylamine	ug/l	10	ND (0.47)	ND (0.46)	ND (0.48)	ND (0.46)	ND (0.46)	ND (0.47)
N-Nitrosodiphenylamine	ug/l	10	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.22)
Phenanthrene	ug/l	-	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)
Pyrene	ug/l	200	ND (0.21)	ND (0.21) h	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)
1,2,4,5-Tetrachlorobenzene	ug/l		ND (0.36)	ND (0.35)	ND (0.37)	ND (0.35)	ND (0.35)	ND (0.36)
.,_, .,o	~9/·		(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)
MS Semi-volatiles (SW846 827	OD BY	SIM)						
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	····,						
Benzo(a)anthracene	ug/l	0.1	ND (0.022)	ND (0.022)	ND (0.023)	ND (0.022)	ND (0.022)	ND (0.022)
Benzo(a)nyrene	ug/l	0.1	ND (0.033)	ND (0.032)	ND (0.033)	ND (0.032)	ND (0.032)	ND (0.022)

AOC 5 - Aeration Basins Groundwater Analytical Results

Client Sample ID:			AB-1	AB-2R	AB-3	AB-4R	AB-4D	AB-5			
Lab Sample ID:		NJ Groundwater	JC97978-5	JC98148-11	JC97978-3	JC97978-1	JC97978-2	JC97978-4			
Date Sampled:		Criteria	11/4/2019	11/6/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019			
Matrix:			Ground Water								
MS Semi-volatile TIC											

Total TIC, Semi-Volatile	ug/l	•	0	0	0	4.5 J	133.3 J	29 J

Metals Analysis

Aluminum	ug/l	200	479	<200	47400 ^f	1270	<200	<200
Antimony	ug/l	6	<6.0	<6.0	<30 ^f	<6.0	<6.0	<6.0
Arsenic	ug/l	3	6.4	<1.0	36.6	1.5	2.5	7.8
Barium	ug/l	6000	<200	308	<1000 ^f	<200	<200	<200
Beryllium	ug/l	1	<1.0	<1.0	<5.0 ^f	1	<1.0	<1.0
Cadmium	ug/l	4	<3.0	<3.0	<15 ^f	<3.0	<3.0	<3.0
Calcium	ug/l	-	33500	142000	<25000 ^f	52600	189000	25600
Chromium	ug/l	70	<10	<10	137 ^f	<10	<10	<10
Cobalt	ug/l	100	<50	<50	<250 ^f	<50	<50	<50
Copper	ug/l	1300	<10	<10	63.5 ^f	<10	<10	<10
Iron	ug/l	300	1010	812	73300 ^f	30300	<100	2820
Lead	ug/l	5	<3.0	<3.0	58.0 ^f	3	<15 ^p	3
Magnesium	ug/l	-	<5000	57200	<25000 ^f	8410	415000	<5000
Manganese	ug/l	50	21.1	241	153 ^f	307	<15	33.2
Mercury	ug/l	2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	ug/l	100	<10	<10	<50 ^f	33	<10	<10
Potassium	ug/l	-	17800	19900	<50000 ^f	18800	312000	<10000
Selenium	ug/l	40	<10	<10	<50 ^f	<10	<50 ^p	<10
Silver	ug/l	40	<10	<10	<50 ^f	<10	22.9	<10
Sodium	ug/l	50000	32500	401000	<50000 ^f	51600	3630000	<10000
Thallium	ug/l	2	<1.0	<1.0	<5.0	<1.0	<2.5	<1.0
Vanadium	ug/l	-	<50	<50	<250 ^f	<50	<50	<50
Zinc	ug/l	2000	<20	<20	187 ^f	223	<20	<20

General Chemistry											
Nitrogen, Ammonia	ug/l	3000	<200	300	<200	<200	17700	500			

Footnotes:

- a Associated CCV outside of control limits low.
- b Associated CCV outside of control limits high, sample was ND.
- $\ensuremath{\mathsf{c}}$ This compound in BS is outside in house QC limits bias high.
- d Associated CCV outside of control limits high, sample was ND.
- This compound in BS is outside in house QC limits bias high.
- e Associated CCV and BS outside of control limits high, sample was ND.
- $\ensuremath{\mathsf{f}}$ This compound in BS is outside in house QC limits bias high.
- Associated CCV outside of control limits high, sample was ND.
- g Associated CCV,BS,BSD outside of control limits high, sample was ND.
- h Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Sample was ND.
- i Estimated value, due to corresponding failure in the batch associated CCV.
- j Associated CCV outside of control limits high.
- Estimated value, due to corresponding failure in the batch associated CCV.
- k Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding
- failure in the batch associated CCV.
- I Result confirmed by reextraction outside of the holding time.
- m Sample reextracted outside of the holding time for confirmation.
- n There is no sample left to reextract for confirmation.
- o Elevated sample detection limit due to difficult sample matrix.
- $\ensuremath{\mathsf{p}}$ Elevated detection limit due to dilution required for high interfering element.
- ${\bf q}$ Elevated detection limit due to dilution required for matrix interference.

Hess Corporation Former Port Reading Complex 750 Cliff Road Port Reading N Table 5.1 AOC 10 - Truck Loading Rack Groundwater Analytical Results

Client Sample ID:		TR-1R	TR-2R	TR-3RR	TR-3D	TR-3DD	TR-4R	TR-4D	TR-4DD	TR-5	TR-5D	TR-5DD	TR-6	TR-6D	PER-1
Lab Sample ID:		JC98455-10	JC98455-11	JC98421-12	JC98421-14	JC98421-13	JC97978-10	JC97978-9	JC97978-8	JC98258-13	JC98258-12	JC98258-11	JC98258-10	JC98421-15	JC98421-10
Date Sampled:	NJ Groundwater Criteria	11/12/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/4/2019	11/4/2019	11/4/2019	11/8/2019	11/8/2019	11/8/2019	11/8/2019	11/11/2019	11/11/2019
Matrix:		Ground Water													

MS Volatiles (SW846 8260C)																
		0000	ND (C.O.)	ND (0.0)	ND (00)	ND (4000)	ND (C.O.)	ND (C.O.)	001	ND (C.O.)	ND (00)	ND (30)	ND (C.O.)	ND (OO)	ND (0.0)	ND (0.0)
Acetone Benzene	ug/l ug/l	6000	ND (6.0) ND (0.43)	ND (6.0) 5.3	ND (60) 11.2	ND (1200) ND (85)	ND (6.0) ND (0.43)	ND (6.0) 0.5	9.0 J 29.9	ND (6.0) ND (0.43)	ND (60) 3610	ND (30)	ND (6.0)	ND (30) 596	ND (6.0) ND (0.43)	ND (6.0) ND (0.43)
Bromochloromethane	ug/l	-	ND (0.48)	ND (0.48)	ND (4.8)	ND (96)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (4.8)	ND (2.4)	ND (0.48)	ND (2.4)	ND (0.48)	ND (0.48)
Bromodichloromethane	ug/l	1	ND (0.58)	ND (0.58)	ND (5.8)	ND (120)	ND (0.58)	ND (0.58)	ND (0.58)	ND (0.58)	ND (5.8)	ND (2.9) b	ND (0.58) b	ND (2.9) b	ND (0.58)	ND (0.58)
Bromoform	ug/l	4	ND (0.63)	ND (0.63)	ND (6.3)	ND (130)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (6.3)	ND (3.2)	ND (0.63)	ND (3.2)	ND (0.63)	ND (0.63)
Bromomethane	ug/l	10	ND (1.6)	ND (1.6)	ND (16)	ND (330)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (16)	ND (8.2)	ND (1.6)	ND (8.2)	ND (1.6)	ND (1.6)
2-Butanone (MEK)	ug/l	300	ND (6.9)	ND (6.9)	ND (69)	ND (1400)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (69)	ND (34)	ND (6.9)	ND (34)	ND (6.9)	ND (6.9)
Carbon disulfide	ug/l	700	ND (0.95)	ND (0.95)	ND (9.5)	ND (190)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (9.5)	ND (4.8)	ND (0.95)	ND (4.8)	ND (0.95)	ND (0.95)
Carbon tetrachloride Chlorobenzene	ug/l	50	ND (0.55) ND (0.56)	ND (0.55) ND (0.56)	ND (5.5) ND (5.6)	ND (110) ND (110)	ND (0.55) ND (0.56)	ND (0.55) ND (0.56)	ND (0.55) ND (0.56)	ND (0.55) ND (0.56)	ND (5.5) ND (5.6)	ND (2.8) b ND (2.8)	ND (0.55) b ND (0.56)	ND (2.8) ^b ND (2.8)	ND (0.55) ND (0.56)	ND (0.55) ND (0.56)
Chloroethane	ug/l ug/l	50	ND (0.56) ND (0.73)	ND (0.56)	ND (5.6) ND (7.3)	ND (110) ND (150)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (5.6) ND (7.3)	ND (2.8) ND (3.6)	ND (0.56) ND (0.73)	ND (2.8) ND (3.6)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)
Chloroform	ug/l	70	ND (0.50)	ND (0.50)	ND (5.0)	ND (100)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (5.0)	ND (2.5)	ND (0.50)	ND (2.5)	ND (0.50)	ND (0.50)
Chloromethane	ug/l	-	ND (0.76)	ND (0.76)	ND (7.6)	ND (150)	ND (0.76)	ND (0.76) a	ND (0.76)	ND (0.76) a	ND (7.6)	ND (3.8)	ND (0.76)	ND (3.8)	ND (0.76)	ND (0.76)
Cyclohexane	ug/l	-	ND (0.78)	11.5	ND (7.8)	ND (160)	ND (0.78)	ND (0.78)	54.9	ND (0.78)	68.1	ND (3.9)	ND (0.78)	11.4 J	ND (0.78)	ND (0.78)
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)	ND (12)	ND (240)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (12)	ND (6.0)	ND (1.2)	ND (6.0)	ND (1.2)	ND (1.2)
Dibromochloromethane	ug/l	1	ND (0.56)	ND (0.56)	ND (5.6)	ND (110)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (5.6)	ND (2.8)	ND (0.56)	ND (2.8)	ND (0.56)	ND (0.56)
1,2-Dibromoethane 1,2-Dichlorobenzene	ug/l	0.03	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (4.8) ND (5.3)	ND (95) ND (110)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (4.8) ND (5.3)	ND (2.4) ND (2.7)	ND (0.48) ND (0.53)	ND (2.4) ND (2.7)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)
1,3-Dichlorobenzene	ug/l ug/l	600	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (5.3) ND (5.4)	ND (110) ND (110)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (5.3) ND (5.4)	ND (2.7) ND (2.7)	ND (0.53) ND (0.54)	ND (2.7)	ND (0.53) ND (0.54)	ND (0.54)
1.4-Dichlorobenzene	ug/l	75	ND (0.51)	ND (0.51)	ND (5.1)	ND (100)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (5.1)	ND (2.5)	ND (0.51)	ND (2.5)	ND (0.51)	ND (0.51)
Dichlorodifluoromethane	ug/l	1000	ND (1.4) b	ND (1.4) b	ND (14)	ND (270)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (14)	ND (6.8)	ND (1.4)	ND (6.8)	ND (1.4)	ND (1.4)
1,1-Dichloroethane	ug/l	50	ND (0.57)	ND (0.57)	ND (5.7)	ND (110)	0.68 J	ND (0.57)	ND (0.57)	ND (0.57)	ND (5.7)	3.6 J	ND (0.57)	ND (2.8)	0.85 J	ND (0.57)
1,2-Dichloroethane	ug/l	2	ND (0.60)	ND (0.60)	ND (6.0)	ND (120)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (6.0)	ND (3.0)	ND (0.60)	ND (3.0)	1.2	ND (0.60)
1,1-Dichloroethene	ug/l	1	1.3	ND (0.59)	ND (5.9)	ND (120)	1.3	ND (0.59)	ND (0.59)	2.3	ND (5.9)	4.7 J	ND (0.59)	ND (3.0)	3	1.8
cis-1,2-Dichloroethene	ug/l	70	ND (0.51)	ND (0.51)	ND (5.1)	207	3.5	ND (0.51)	ND (0.51)	4	ND (5.1)	ND (2.5)	ND (0.51)	ND (2.5)	3.4	ND (0.51)
trans-1,2-Dichloroethene 1,2-Dichloropropane	ug/l ug/l	100	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (5.4) ND (5.1)	ND (110) ND (100)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (5.4) ND (5.1)	ND (2.7) ND (2.5)	ND (0.54) ND (0.51)	ND (2.7) ND (2.5)	ND (0.54)	ND (0.54) ND (0.51)
cis-1,3-Dichloropropene	ug/I	-	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (5.1) ND (4.7)	ND (100) ND (94)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (5.1) ND (4.7)	ND (2.5) ND (2.4)	ND (0.51) ND (0.47)	ND (2.5) ND (2.4)	1.4 ND (0.47)	ND (0.51) ND (0.47)
trans-1,3-Dichloropropene	ug/l	-	ND (0.47)	ND (0.47)	ND (4.3)	ND (86)	ND (0.47)	ND (0.43)	ND (0.47)	ND (0.47)	ND (4.7)	ND (2.2)	ND (0.47)	ND (2.2)	ND (0.47)	ND (0.43)
Ethylbenzene	ug/l	700	ND (0.60)	18.2	ND (6.0)	ND (120)	ND (0.60)	ND (0.60)	42.3	ND (0.60)	138	11.2	ND (0.60)	108	ND (0.60)	ND (0.60)
Freon 113	ug/l	20000	ND (1.9)	ND (1.9)	ND (19)	ND (390)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (19)	ND (9.7)	ND (1.9)	ND (9.7)	ND (1.9)	ND (1.9)
2-Hexanone	ug/l	40	ND (2.0)	ND (2.0)	ND (20)	ND (410)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (20)	ND (10)	ND (2.0)	ND (10)	ND (2.0)	ND (2.0)
Isopropylbenzene	ug/l	700	ND (0.65)	ND (0.65)	ND (6.5)	ND (130)	ND (0.65)	ND (0.65)	5.7	ND (0.65)	32.8	ND (3.2)	ND (0.65)	ND (3.2)	ND (0.65)	ND (0.65)
Methyl Acetate	ug/l	7000	ND (0.80)	ND (0.80)	ND (8.0)	ND (160)	ND (0.80)	ND (0.80)	ND (0.80) a	ND (0.80)	ND (8.0)	ND (4.0)	ND (0.80)	ND (4.0)	ND (0.80)	ND (0.80)
Methylcyclohexane Methyl Tert Butyl Ether	ug/l ug/l	70	ND (0.60) ND (0.51)	25.3 49.9	ND (6.0) 2620	ND (120) 133000	ND (0.60) 30.8	ND (0.60) 1750	47.6 2.3	ND (0.60) ND (0.51)	30.8 J 729	ND (3.0) 5840	ND (0.60) 7.7	5.1 J 4040	ND (0.60) 0.88 J	ND (0.60) ND (0.51)
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)	6.4	ND (19)	ND (370)	ND (1.9)	ND (1.9)	2.9 J	ND (1.9)	ND (19)	ND (9.3)	ND (1.9)	ND (9.3)	ND (1.9)	ND (1.9)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (10)	ND (200)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (5.0)	ND (1.0)	ND (5.0)	ND (1.0)	ND (1.0)
Styrene	ug/l	100	ND (0.70)	ND (0.70)	ND (7.0)	ND (140)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (7.0)	ND (3.5)	ND (0.70)	ND (3.5)	ND (0.70)	ND (0.70)
Tert Butyl Alcohol	ug/l	100	ND (5.8)	37.3	28300	75700	92.1	18100	ND (5.8)	ND (5.8)	3130	18800	ND (5.8)	1770	ND (5.8)	ND (5.8)
1,1,2,2-Tetrachloroethane	ug/l	1	ND (0.65)	ND (0.65)	ND (6.5)	ND (130)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (6.5)	ND (3.3)	ND (0.65)	ND (3.3)	ND (0.65)	ND (0.65)
Tetrachloroethene Toluene	ug/l	1	ND (0.90) ND (0.53)	ND (0.90)	ND (9.0)	ND (180)	ND (0.90)	ND (0.90) ND (0.53)	ND (0.90) 30.8	ND (0.90) ND (0.53)	ND (9.0)	ND (4.5)	ND (0.90)	ND (4.5)	4.4	ND (0.90)
1,2,3-Trichlorobenzene	ug/l ug/l	600	ND (0.53) ND (0.50)	8.2 ND (0.50)	ND (5.3) ND (5.0)	ND (110) ND (100) °	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.50)	ND (0.53) ND (0.50)	120 ND (5.0)	ND (2.7) ND (2.5)	ND (0.53) ND (0.50)	27.1 ND (2.5)	ND (0.53) ND (0.50) °	ND (0.53) ND (0.50)
1,2,4-Trichlorobenzene	ug/l	9	ND (0.50)	ND (0.50)	ND (5.0)	ND (100) f	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (5.0)	ND (2.5)	ND (0.50)	ND (2.5)	ND (0.50)	ND (0.50)
1,1,1-Trichloroethane	ug/l	30	ND (0.54)	ND (0.54)	ND (5.4)	ND (110)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (5.4)	ND (2.7)	ND (0.54)	ND (2.7)	ND (0.54)	2.3
1,1,2-Trichloroethane	ug/l	3	ND (0.53)	ND (0.53)	ND (5.3)	ND (110)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (5.3)	ND (2.7)	ND (0.53)	ND (2.7)	ND (0.53)	ND (0.53)
Trichloroethene	ug/l	1	ND (0.53)	ND (0.53)	ND (5.3)	4880	3	ND (0.53)	ND (0.53)	2.4	ND (5.3)	ND (2.6)	ND (0.53)	ND (2.6)	1.9	ND (0.53)
Trichlorofluoromethane	ug/l	2000	ND (0.84)	ND (0.84)	ND (8.4)	ND (170)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (8.4)	ND (4.2)	ND (0.84)	ND (4.2)	ND (0.84)	ND (0.84)
Vinyl chloride m.p-Xylene	ug/l	1	ND (0.79) ND (0.78)	ND (0.79) 51.8	ND (7.9) ND (7.8)	ND (160) ND (160)	ND (0.79) ND (0.78)	ND (0.79) ND (0.78)	ND (0.79) 67.1	ND (0.79) ND (0.78)	ND (7.9) 271	ND (3.9) ND (3.9)	ND (0.79) ND (0.78)	ND (3.9) 135	ND (0.79) ND (0.78)	ND (0.79) ND (0.78)
m,p-Xylene o-Xylene	ug/l ug/l	-	ND (0.78) ND (0.59)	51.8 14.5	ND (7.8) ND (5.9)	ND (160) ND (120)	ND (0.78) ND (0.59)	ND (0.78) ND (0.59)	40.8	ND (0.78) ND (0.59)	50.6	ND (3.9) ND (3.0)	ND (0.78) ND (0.59)	135	ND (0.78) ND (0.59)	ND (0.78) ND (0.59)
Xylene (total)	ug/l	1000	ND (0.59)	66.3	ND (5.9)	ND (120)	ND (0.59)	ND (0.59)	108	ND (0.59)	322	ND (3.0)	ND (0.59)	148	ND (0.59)	ND (0.59)
. ,	-5.	1000	(0.00)		()	()	()	(5.55)		(5.55)		(0.0)	()		(0.00)	(0.00)
Total TIC, Volatile	ug/l	-	0	822 J	0	1200 J	0	179.2 J	5987 J	0	4832 J	81 J	0	1114 J	0	0
MS Semi-volatiles (SW846 8270D	0)		I													
Acenaphthene	ug/l	400	ND (0.18)	2.9	ND (0.18)	0.51 J	ND (0.18)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.18)					
Acenaphthylene	ug/l	-	ND (0.13)	ND (0.14)	ND (0.13)	ND (0.13)										
Acetophenone	ug/l	700	ND (0.20)	27	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)							
Anthracene	ug/l	2000	ND (0.20)	1	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)								
Atrazine	ug/l	3	ND (0.43)	ND (0.43) b	ND (0.43) b	ND (0.43) b	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.45)	ND (0.43)	ND (0.43)				
Benzaldehyde	ug/l	-	ND (0.28)	ND (0.29)	ND (0.28)	ND (0.28)										
Benzo(g,h,i)perylene 4-Bromophenyl phenyl ether	ug/l	-	ND (0.32) ND (0.38)	ND (0.34) ND (0.40)	ND (0.32) ND (0.38)	ND (0.32) ND (0.38)										
4-Bromophenyl phenyl ether Butyl benzyl phthalate	ug/l ug/l	100	ND (0.38) ND (0.44)	ND (0.40) ND (0.46)	ND (0.38) ND (0.44)	ND (0.38) ND (0.44)										
1,1'-Biphenyl	ug/l	400	ND (0.44)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.44)	ND (0.20)	ND (0.20)	0.23 J	ND (0.20)	ND (0.44)	ND (0.40)	ND (0.20)	ND (0.20)
2-Chloronaphthalene	ug/l	600	ND (0.22)	ND (0.24)	ND (0.22)	ND (0.22)										
4-Chloroaniline	ug/l	30	ND (0.32)	ND (0.34)	ND (0.32)	ND (0.32)										
Carbazole	ug/l	-	ND (0.22)	0.51 J	ND (0.22)	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.22)							
Caprolactam	ug/l	4000	ND (0.62)	ND (0.65)	ND (0.62)	ND (0.62)										
Chrysene	ug/l	5	ND (0.17)	0.63 J	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)								
bis(2-Chloroethoxy)methane bis(2-Chloroethyl)ether	ug/l ug/l	7	ND (0.26) ND (0.24)	ND (0.28) ND (0.25)	ND (0.26) ND (0.24)	ND (0.26) ND (0.24)										
2,2'-Oxybis(1-chloropropane)	ug/l	300	ND (0.24) ND (0.38)	ND (0.25) ND (0.40)	ND (0.24) ND (0.38)	ND (0.24) ND (0.38)										
4 Obligation of the section of	ug/I		ND (0.35)	ND (0.36)	ND (0.35)	ND (0.36)	ND (0.35)	ND (0.40)	ND (0.36)	ND (0.36)						

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4-Chlorophenyl phenyl ether

2,4-Dinitrotoluene

Dibenzofuran

Di-n-butyl phtha

-n-octyl phthalate ethyl phthalate

methyl phthala

Hexachloroethane

Isophorone
2-Methylnaphthal
2-Nitroaniline
3-Nitroaniline

-Nitroaniline Vaphthalene Vitrobenzene

Phenanthrene

is(2-Ethylhexyl)phthalate

lexachlorocyclopentadiene

Nitroso-di-n-propylamine

N-Nitrosodiphenylamine

1,2,4,5-Tetrachlorobenzene

ug/l

ug/l ug/l ug/l

ug/l ug/l ug/l

ug/l

ug/l ug/l

ug/l

ug/l

ug/l ug/l ug/l

ug/l

ug/l ug/l ug/l

ug/l ug/l ug/l ug/l

ug/l

700

300

300

200

Client Sample ID:			TR-1R	TR-2R	TR-3RR	TR-3D	TR-3DD	TR-4R	TR-4D	TR-4DD	TR-5	TR-5D	TR-5DD	TR-6	TR-6D	PER-1
Lab Sample ID:			JC98455-10	JC98455-11	JC98421-12	JC98421-14	JC98421-13	JC97978-10	JC97978-9	JC97978-8	JC98258-13	JC98258-12	JC98258-11	JC98258-10	JC98421-15	JC98421-10
Date Sampled:		NJ Groundwater Criteria	11/12/2019	11/12/2019	11/11/2019	11/11/2019	11/11/2019	11/4/2019	11/4/2019	11/4/2019	11/8/2019	11/8/2019	11/8/2019	11/8/2019	11/11/2019	11/11/2019
Matrix:			Ground Water													
MS Semi-volatiles (SW846 82700	D BY SIM															
Benzo(a)anthracene	ug/l	0.1	ND (0.022)	1.12	ND (0.022) b	ND (0.022) b	ND (0.022) b	ND (0.022)	ND (0.023)	ND (0.022) b	ND (0.022)					
Benzo(a)pyrene	ug/l	0.1	ND (0.032)	0.5	ND (0.032)	ND (0.033)	ND (0.032)	ND (0.032)								
Benzo(b)fluoranthene	ug/l	0.2	ND (0.041)	0.683	ND (0.041)	ND (0.041)	ND (0.041)	0.0585	0.0664	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.043)	ND (0.041)	ND (0.041)
Benzo(k)fluoranthene	ug/l	0.5	ND (0.048)	0.277	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.048)								
Dibenzo(a,h)anthracene	ug/l	0.3	ND (0.048)	0.0798 J	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.048)								
Hexachlorobenzene	ug/l	0.02	ND (0.011)	0.0163	0.0125 J	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.011)	0.0748	0.0509 j					
Hexachlorobutadiene	ug/l	1	ND (0.048)	ND (0.048) b	ND (0.048) b	ND (0.048) b	ND (0.050) b	ND (0.048)	ND (0.048)							
Indeno(1,2,3-cd)pyrene	ug/l	0.2	ND (0.048)	0.213	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.048)								
1,4-Dioxane	ug/l	0.4	0.156	ND (0.048)	0.216	1.23	0.687	0.637	0.0802 J	0.402	ND (0.048)	2.38	1.89	0.0661 J	0.588	0.378
Total TIC, Semi-Volatile	ug/l	-	4.4 J	307 J	19 J	57 J	5.3 J	152.3 J	201.8 J	0	779.5 J	15.3 J	0	141.6 J	4.4 J	5.4 J
Metals Analysis																
Aluminum	ug/l	200	205	1420	546	742	213	1210	4300	<200	537	6460	224	1410	421	212
Antimony	ug/l	6	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	6	<6.0	<6.0	<6.0	<6.0
Arsenic	ug/l	3	1.3	1.3	2.2	2.2	<1.0	<1.0	6.3	<1.0	2.1	3.3	<1.0	6.6	<1.0	1.8
Barium	ug/l	6000	<200	<200	215	<200	<200	250	<200	208	<200	348	304	<200	<200	<200
Beryllium	ug/l	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	ug/l	4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Calcium	ug/l		60700	5790	82800	194000	105000	116000	22900	102000	35100	116000	113000	29700	79300	26700
Chromium	ug/l	70	<10	<10	<10	<10	<10	<10	15.4	<10	<10	17	<10	<10	<10	<10
Cobalt	ug/l	100	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Copper	ug/l	1300	<10	17.9	16.6	<10	10.5	10.3	26.4	<10	<10	20.7	<10	<10	15.3	<10
Iron	ug/l	300	229	684	3500	1010	4330	1420	5180	2040	5400	11600	4680	8010	487	276
Lead	ug/l	5	<3.0	4.6	3.7	<3.0	<3.0	7.6	17.4	3	<3.0	5.4	<3.0	6.2	<3.0	<3.0
Magnesium	ug/l	-	16100	<5000	7040	28800	15600	20200	<5000	18600	10000	26800	15700	5260	21300	<5000
Manganese	ug/l	50	21.9	<15	1990	1390	105	486	81.4	100	1150	451	129	632	<15	96.3
Mercury	ug/l	2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	ug/l	100	<10	<10	<10	10.7	<10	<10	10.8	<10	<10	17	<10	<10	<10	<10
Potassium	ug/l	-	<10000	18600	<10000	14800	<10000	<10000	<10000	<10000	<10000	<10000	<10000	<10000	<10000	<10000
Selenium	ug/l	40	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver	ug/l	40	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sodium	ug/l	50000	42000	111000	32000	140000	45300	87300	95900	60400	144000	76300	36900	13900	60100	19600
Thallium	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium	ug/l	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Zinc	ug/l	2000	20.5	41	<20	<20	<20	73.4	229	40.2	<20	32.7	<20	<20	<20	<20
General Chemistry																
Concrat Orientially																
Nitrogen, Ammonia	ug/l	3000	<200	1400	<200	<200	<200	280	620	<200	850	<200	<200	340	<200	<200

Nitrogen, Ammonia

- Nitrogen, Ammonia | ugil | 3000 | <200 | 1400 |

 Footnotes:

 a Associated CCV outside of control limits low.
 b Associated CCV outside of control limits ligh, sample was ND.
 c This compound in BS is outside in house QC limits bias high.
 d Associated CCV outside of control limits high, sample was ND.
 This compound in BS is outside in house QC limits bias high.
 d Associated CCV and BS outside of control limits high, sample was ND.
 If it is compound in BS is outside in house QC limits bias high.
 Associated CCV and BS outside of control limits high, sample was ND.
 f This compound in BS is outside in house QC limits bias high.
 Associated CCV dustide of control limits high, sample was ND.
 h Associated CCV outside of control limits high, sample was ND.
 i Estimated value, due to corresponding failure in the batch associated CCV.
 J Associated CCV outside of control limits low.
 Lestimated value, due to corresponding failure in the batch associated CCV.
 K Associated CCV outside of control limits low.
 Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding failure in the batch associated CCV.
 R Associated CCV outside of control limits low.
 Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding failure in the batch associated CCV.
 Result confirmed by reextraction outside of the holding time.
 m Sample reextracted outside of the holding time.
 m Sample reextracted outside of the holding time for confirmation.
 n There is no sample left to restract for confirmation.
 o Elevated detection limit due to difficult sample matrix.
 p Elevated detection limit due to difficult sample matrix.

Client Sample ID: Lab Sample ID: Date Sampled: Matrix: MS Volatiles (SW846 8260C)	NJ Groundwater Criteria	AD-1 JC98257-3 11/7/2019 Ground Water	AD-200 JC98421-8 11/11/2019 Ground Water	AD-2 JC88421-9 11/11/2019 Ground Water	AD-3 JC98455-13 11/12/2019 Ground Water	AD-3D JC98455-12 11/12/2019 Ground Water	AD-4 JC98257-1 11/7/2019 Ground Water	AD-5 JC98257-15 11/8/2019 Ground Water	AD-5D JC98257-2 11/7/2019 Ground Water	AD-6 JC98257-4 11/7/2019 Ground Water	AD-8 JC98258-8 11/8/2019 Ground Water	AD-9D JC98257-14 11/8/2019 Ground Water	AD-9DD JC98421-7 11/11/2019 Ground Water	AD-10 JC98257-13 11/8/2019 Ground Water	AD-160D JC98257-12 11/8/2019 Ground Water
Acetone up1 Berozone up1 Bromodiforomethane up1 Bromodiforomethane up1 Bromodiforomethane up1	1 - 1 4	ND (6.0) ND (0.43) ND (0.48) ND (0.58) ND (0.63)	ND (6.0) ND (0.43) ND (0.48) ND (0.58) ND (0.63)	ND (150) ND (11) ND (12) ND (15) ND (16)	ND (6.0) * ND (0.43) ND (0.48) ND (0.58) ND (0.63)	ND (6.0) * ND (0.43) ND (0.48) ND (0.58) ND (0.63)	ND (30) 17.7 ND (2.4) ND (2.9) ND (3.2)	ND (60) ND (4.3) ND (4.8) ND (5.8) ND (6.3)	ND (60) 11 ND (4.8) ND (5.8) ND (6.3)	ND (6.0) ND (0.43) ND (0.48) ND (0.58) ND (0.63)	ND (6.0) ND (0.43) ND (0.48) ND (0.58) ^b ND (0.63)	ND (6.0) ND (0.43) ND (0.48) ND (0.58) ND (0.63)	ND (6.0) ND (0.43) ND (0.48) ND (0.58) ND (0.63)	ND (300) 37.6 ND (24) ND (29) ND (32)	ND (6.0) ND (0.43) ND (0.48) ND (0.58) ND (0.63)
Bromomethane up1 2-Butanone (MEK) up1 Carbon disulfide up1 Carbon tetrachloride up1 Chlorobenzene up1	700 1 50	ND (1.6) ND (6.9) ND (0.95) ND (0.55) ND (0.56)	ND (1.6) ND (6.9) ND (0.96) ND (0.56) 2.9	ND (41) ND (170) ND (24) ND (14) ND (14)	ND (1.6) ND (6.9) ND (0.95) ND (0.55) ND (0.56)	ND (1.6) ND (6.9) ND (0.95) ND (0.56) ND (0.56)	ND (8.2) ND (34) ND (4.8) ND (2.8) 1290 ND (3.6)	ND (16) ND (69) ND (9.5) ND (5.5) 25.8	ND (16) ND (80) ND (9.5) ND (5.5) 51.3 ND (7.3)	ND (1.6) ND (6.9) ND (0.96) ND (0.56) ND (0.56)	ND (1.6) ND (6.9) ND (0.95) ND (0.56) * ND (0.56)	ND (1.6) ND (6.9) ND (0.95) ND (0.55) 23.4	ND (1.6) ND (6.9) ND (0.95) ND (0.55) ND (0.56)	ND (82) ND (340) ND (48) ND (28) 3320 ND (36)	ND (1.6) ND (8.9) ND (0.95) ND (0.55) ND (0.56)
Chloroethane up1 Chloroform up1 Chloromethane up1 Cydohexam up1 1,2-Dhormo-3-chloropropane up1	70 - - 0.02	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)	ND (18) 19.5 J ND (19) ND (20) ND (30)	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)	ND (2.5) ND (3.8) ND (3.9) ND (6.0)	ND (7.3) ND (5.0) ND (7.6) ND (7.8) ND (12)	18.1 ND (7.6) ND (7.8) ND (12)	ND (0.73) ND (0.50) ND (0.78) ND (0.78) ND (1.2)	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)	ND (25) ND (38) ND (39) ND (60)	ND (0.73) ND (0.50) ND (0.76) ND (0.78) ND (1.2)
Dibromochloromethane ug/l 1.2-Distornochlane ug/l 1.2-Dichloroberzane ug/l 1.3-Dichloroberzane ug/l 1.4-Dichloroberzane ug/l	0.03 600 600	ND (0.56) ND (0.48) ND (0.53) ND (0.54) ND (0.51)	ND (0.56) ND (0.48) 0.62 J ND (0.54) ND (0.51)	ND (14) ND (12) ND (13) ND (14) ND (13)	ND (0.56) ND (0.48) ND (0.53) ND (0.54) ND (0.51)	ND (0.56) ND (0.48) ND (0.53) ND (0.54) ND (0.51)	ND (2.4) ND (2.4) 34.6 71.6 198	ND (5.6) ND (4.8) 168 ND (5.4) 74	ND (5.6) ND (4.8) 823 10.3 276	ND (0.56) ND (0.48) ND (0.53) ND (0.54) ND (0.51)	ND (0.58) ND (0.48) ND (0.53) ND (0.54) ND (0.51)	ND (0.56) ND (0.48) 90.6 4.3 54.5	ND (0.56) ND (0.48) 2.6 ND (0.54) 0.87 J	ND (28) ND (24) 4570 999 5780	ND (0.56) ND (0.48) 3 ND (0.54) 1.4
Dichlorodifuoromethane up1 1,1-Dichlorodhane up1 1,2-Dichlorodhane up1 1,2-Dichlorodhane up1 cis-1,2-Dichlorodhane up1	1000 50 2 1	ND (1.4) ^a ND (0.57) ND (0.60) 2 ND (0.51)	ND (1.4) 3.1 2.1 7.3	ND (34) 406 17.2 J 12500 28.7	ND (1.4) ND (0.57) ND (0.60) ND (0.59) ND (0.51)	ND (1.4) 8.7 ND (0.60) 7.5	ND (6.8) * ND (2.8) 4.8 J ND (3.0) ND (2.5)	ND (14) b ND (5.7) ND (6.0) ND (5.9) 2670	ND (14) b 1200 30.2 7350 27.2	ND (1.4) a ND (0.57) ND (0.60) ND (0.59) ND (0.51)	ND (1.4) ND (0.57) ND (0.60) ND (0.59) ND (0.51)	ND (1.4) b 8.7 ND (0.60) 18.2 303	ND (1.4) ND (0.57) ND (0.60) ND (0.59) ND (0.51)	ND (68) ⁴ ND (28) ND (30) 102	ND (1.4) * ND (0.57) 0.69 J ND (0.59) 0.64 J
trans-1,2-Dichlorosthene upl 1,2-Dichloropropane upl cis-1,3-Dichloropropene upl trans-1,3-Dichloropropene upl	100	ND (0.54) ND (0.51) ND (0.47) ND (0.43)	ND (0.54) ND (0.51) ND (0.47) ND (0.43)	ND (13) 63.9 ND (12) ND (11)	ND (0.54) ND (0.51) ND (0.47) ND (0.43)	ND (0.54) ND (0.51) ND (0.47) ND (0.43)	ND (2.7) ND (2.5) ND (2.4) ND (2.2)	12 ND (5.1) ND (4.7) ND (4.3)	ND (5.4) ND (5.1) ND (4.7) ND (4.3)	ND (0.54) ND (0.51) ND (0.47) ND (0.43)	ND (0.54) ND (0.51) ND (0.47) ND (0.43)	1.8 ND (0.51) ND (0.47) ND (0.43)	ND (0.54) ND (0.51) ND (0.47) ND (0.43)	ND (27) ND (25) ND (24) ND (22)	ND (0.54) ND (0.51) ND (0.47) ND (0.43)
Ethylberoone up1 Freen 113 up1 2-Hexanone up1 tsopropylberoone up1 Methyl Acetale up1	20000 40 700 7000	ND (0.60) ND (1.9) ^b ND (2.0) ND (0.65) ND (0.80)	ND (0.60) ND (1.9) ND (2.0) ND (0.66) ND (0.80)	ND (15) ND (49) ND (51) ND (16) ND (20) ND (15)	ND (0.60) ND (1.9) ND (2.0) ND (0.65) ND (0.80)	ND (0.60) ND (1.9) ND (2.0) ND (0.65) ND (0.80)	ND (3.0) ND (9.7) ND (10) ND (3.2) ND (4.0)	ND (6.0) 53.3 ND (20) ND (6.5) ND (8.0)	302 195 ND (20) 12.5 ND (8.0)	ND (0.60) ND (1.9) ⁵ ND (2.0) ND (0.65) ND (0.80)	ND (0.60) ND (1.9) ND (2.0) ND (0.65) ND (0.80)	1.4 80.1 ND (2.0) ND (0.65) ND (0.80) ND (0.60)	ND (0.60) ND (1.9) ND (2.0) ND (0.65) ND (0.80)	8640 ND (97) ^b ND (100) 188 ND (40)	ND (0.60) ND (1.9) ^b ND (2.0) ND (0.65) ND (0.80)
Methylcyclohaszane ug/l Methyl Tert Butyl Ether ug/l 4-Methyl-2-pentanone(MBK) ug/l Methylene chloride ug/l Styrene ug/l	70 - 3	ND (0.60) ND (0.51) ND (1.9) ND (1.0) ND (0.70)	ND (0.60) ND (0.51) ND (1.9) ND (1.0) ND (0.70)	ND (13) ND (46) ND (25) ND (17)	ND (0.60) ND (0.51) ND (1.9) ND (1.0) ND (0.70)	ND (0.60) 1.3 ND (1.9) ND (1.0) ND (0.70)	ND (3.0) ND (2.5) ND (9.3) ND (5.0) ND (3.5)	ND (6.0) ND (5.1) ND (19) ND (10) ND (7.0)	ND (6.0) ND (5.1) ND (19) ND (10) ND (7.0)	ND (0.60) ND (0.51) ND (1.9) ND (1.0) ND (0.70)	ND (0.60) ND (0.51) ND (1.9) ND (1.0) ND (0.70)	0.75 J ND (1.9) ND (1.0) ND (0.70)	ND (0.60) ND (0.51) ND (1.9) ND (1.0) ND (0.70)	ND (30) ND (25) ND (93) ND (50) ND (35)	ND (0.60) ND (0.51) ND (1.9) ND (1.0) ND (0.70)
Tert Butyl Alcohol up1 1,1,2,2-Tetrachloroethene up1 Tetrachloroethene up1 Tolsene up1 1,2,3-Trichloroberszene up1	1 1 600	ND (5.8) ND (0.65) ND (0.90) ND (0.53) ND (0.50)	ND (5.8) ND (0.65) 2 ND (0.53) ND (0.50)	ND (150) ND (16) 245 116 ND (13) *	ND (5.8) ND (0.65) ND (0.90) ND (0.53) ND (0.50)	ND (5.8) ND (0.65) ND (0.90) ND (0.53) ND (0.50)	ND (29) ND (3.3) ND (4.5) ND (2.7) ND (2.5)	ND (58) ND (6.5) 628 ND (5.3)	ND (58) ND (6.5) 165 19 24.3	ND (5.8) ND (0.65) ND (0.90) ND (0.53) ND (0.50)	ND (5.8) ND (0.65) ND (0.90) ND (0.53) ND (0.50)	ND (5.8) ND (0.65) 295 ND (0.53) 7.7	ND (5.8) ND (0.65) ND (0.90) ND (0.53) ND (0.50)	ND (290) ND (33) ND (45) 606 89.6	ND (5.8) ND (0.65) ND (0.90) ND (0.53) ND (0.50)
1,2,4-Trichloroberzene upl 1,1,1-Trichloroethane upl 1,1,2-Trichloroethane upl Trichloroethane upl	9 30 3	ND (0.50) ND (0.54) ND (0.53) ND (0.53)	ND (0.50) ND (0.54) ND (0.53) 1.6	ND (13) ** 14300 24.5 J 90.6	ND (0.50) ND (0.54) ND (0.53) ND (0.53)	ND (0.50) ND (0.54) ND (0.53) 6.2	ND (2.5) ND (2.7) ND (2.7) ND (2.6)	ND (5.4) ND (5.3) 299	146 1110 21.9 74	ND (0.50) ND (0.54) ND (0.53) ND (0.53)	ND (0.50) ND (0.54) ND (0.53) ND (0.53)	42 0.58 J ND (0.53) 76.4	ND (0.50) ND (0.54) ND (0.53) 1.8	484 ND (27) ND (27) 35.7 J	2.7 ND (0.54) ND (0.53) ND (0.53)
Trichiorofluoromethane ugit Vinyl chloride ugit nYvjerne ugit vXylerne ugit Xylerne (totat) ugit	1	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)	ND (21) 26.7 26.2 19.3 J 45.5	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)	ND (4.2) ND (3.9) ND (3.9) ND (3.0) ND (3.0)	ND (8.4) 17.3 ND (7.8) ND (5.9) ND (5.9)	ND (8.4) 67.7 176 328 504	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)	ND (0.84) 5.8 3.3 0.84 J 4.1	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)	ND (42) 117 15100 3990 19100	ND (0.84) ND (0.79) ND (0.78) ND (0.59) ND (0.59)
MS Volatile TIC Total TIC, Volatile ugf		0	0	0	0	0	0	0	0	0	0	9.6 J	0	0	0
MS Semi-volatiles (SW846 82700) Aceraphthene up1 Aceraphthylene up1 Acetophenone up1		ND (0.19) ND (0.13) ND (0.21)	0.72 J ND (0.14) ND (0.21)	ND (0.18) ND (0.13) ND (0.20)	ND (0.18) ND (0.13) ND (0.20)	ND (0.18) ND (0.13) ND (0.20)	ND (0.18) ND (0.13) ND (0.20)	ND (0.18) ND (0.13) ND (0.20)	ND (0.19) ND (0.14) 2.9	ND (0.19) ND (0.14) ND (0.21)	ND (0.18) ND (0.13) ND (0.20)	ND (0.18) ND (0.13) ND (0.20)	ND (0.19) ND (0.13) ND (0.20)	ND (0.18) ND (0.13) 25.4	ND (0.18) ND (0.13) ND (0.20)
Arshracene upl Atrazine upl Barozidehyde upl Benzo(g.h.i)perylene upl 4-Bromophenyl phenyl ether upl	2000 3 -	ND (0.21) ND (0.44) ND (0.29) ND (0.34) ND (0.40)	ND (0.21) ND (0.45) ND (0.29) ND (0.34) ND (0.40)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)	ND (0.20) ND (0.43) ND (0.28) ND (0.33) ND (0.39)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)	ND (0.21) ND (0.45) ND (0.29) ND (0.34) ND (0.40)	ND (0.21) ND (0.45) ND (0.29) ND (0.34) ND (0.40)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)	ND (0.20) ND (0.43) ND (0.28) ND (0.33) ND (0.39)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)	ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38)
Butyl benzyl phthalate up! 1,1'-Biphenyl up! 2-Chloronaphthalene up! 4-Chloroaniline up!	100 400 600 30	ND (0.45) ND (0.21) ND (0.23) ND (0.34)	ND (0.46) ND (0.21) ND (0.24) ND (0.34)	ND (0.44) 0.54 J ND (0.22) ND (0.32)	ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.44) ND (0.20) ND (0.23) ND (0.33)	ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.46) ND (0.21) ND (0.24) ND (0.34)	ND (0.46) ND (0.21) ND (0.24) ND (0.34)	ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.44) ND (0.21) ND (0.23) ND (0.33)	ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.44) ND (0.20) ND (0.22) ND (0.32)
Carbazole ug/l Caprolactam ug/l Chryseare ug/l bis(2-Chioroethoxy)methane ug/l bis(2-Chioroethyl)ether ug/l	4000 5 - 7	ND (0.23) ND (0.64) ^b ND (0.17) ND (0.28) ND (0.25)	0.35 J ND (0.65) 0.45 J ND (0.28) ND (0.25)	0.24 J 4.5 ND (0.17) ND (0.26) ND (0.24)	ND (0.22) ND (0.62) ND (0.17) ND (0.26) ND (0.24)	ND (0.22) ND (0.62) ND (0.17) ND (0.26) ND (0.24)	ND (0.22) ND (0.62) ⁶ ND (0.17) ND (0.27) ND (0.24) ND (0.39) ⁶	ND (0.22) ND (0.62) ND (0.17) ND (0.26) ND (0.24)	ND (0.23) ND (0.65) ^b ND (0.18) ND (0.28) ND (0.25)	ND (0.23) ND (0.65) ^b ND (0.18) ND (0.28) ND (0.25)	ND (0.22) ND (0.62) ND (0.17) ND (0.26) ND (0.24)	ND (0.22) ND (0.62) ND (0.17) ND (0.26) ND (0.24)	ND (0.22) ND (0.63) ND (0.17) ND (0.27) ND (0.24)	ND (0.22) ND (0.62) ND (0.17) ND (0.26) ND (0.24)	ND (0.22) ND (0.62) ND (0.17) ND (0.26) ND (0.24) ND (0.38)
2.2-Oxybis(1-chloropropane) up1 4-Chlorophenyl phenyl ether up1 2.4-Dinitrotoluene up1 3.3-Dichloroberusisne up1 3.3-Dichloroberusisne up1		ND (0.40) ¹ ND (0.36) ND (0.55) ⁵ ND (0.47) ND (0.50)	ND (0.40) ND (0.37) ND (0.56) ND (0.48) ND (0.51)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)	ND (0.39) ⁹ ND (0.35) ND (0.53) ⁵ ND (0.46) ND (0.49)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)	ND (0.40) ¹ ND (0.37) ND (0.55) ^b ND (0.48) ND (0.51)	ND (0.40) ⁸ ND (0.37) ND (0.56) ⁶ ND (0.48) ND (0.51)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)	ND (0.39) ND (0.36) ND (0.54) ND (0.46) ND (0.49)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)	ND (0.38) ND (0.35) ND (0.53) ND (0.45) ND (0.48)
1,4-Dioxane upit Dibercofusen upit Di-n-butyl phthalate upit Di-n-octyl phthalate upit Distryl phthalate upit	0.4 - 700 100	ND (0.22) ND (0.49) ND (0.23) ⁵ ND (0.26)	ND (0.22) ND (0.50) ND (0.23) ND (0.26)	2620 ND (0.21) ND (0.47) ND (0.22) ND (0.25)	ND (0.21) ND (0.47) ND (0.22) ND (0.25)	18.5 ND (0.21) ND (0.47) ND (0.22) ND (0.25)	ND (0.21) ND (0.48) ND (0.22) ⁶ ND (0.25)	ND (0.21) ND (0.47) ND (0.22) ND (0.25)	ND (0.22) ND (0.50) ND (0.23) ^b ND (0.26)	ND (0.22) ND (0.50) ND (0.23) * ND (0.26)	ND (0.21) ND (0.47) ND (0.22) ND (0.25)	ND (0.21) ND (0.47) ND (0.22) ND (0.25)	ND (0.21) ND (0.48) ND (0.23) ND (0.25)	83.9 ND (0.21) ND (0.47) ND (0.22) ND (0.25)	ND (0.21) ND (0.47) ND (0.22) ND (0.25)
Directly/i phthalate up/i bis(2-Ethy/heny/)phthalate up/i Fluorenthene up/i Fluorene up/i	3 300 300	ND (0.22) ND (1.6) ND (0.17) ND (0.17)	ND (0.22) ND (1.7) 0.84 J 0.29 J	ND (0.21) ND (1.6) ND (0.16) 0.27 J	ND (0.21) ND (1.6) b ND (0.16) ND (0.16)	ND (0.21) ND (1.6) b ND (0.16) ND (0.16)	ND (0.21) ND (1.6) ND (0.16) ND (0.16)	ND (0.21) ND (1.6) ND (0.16) ND (0.16)	ND (0.22) ND (1.7) ND (0.17) ND (0.17)	ND (0.22) ND (1.7) ND (0.17) ND (0.17)	ND (0.21) ND (1.6) ND (0.16) ND (0.16)	ND (0.21) ND (1.6) ND (0.16) ND (0.16)	ND (0.21) ND (1.6) ND (0.17) ND (0.17)	ND (0.21) ND (1.6) 0.18 J ND (0.16)	ND (0.21) ND (1.6) ND (0.16) ND (0.16)
Hexachtorocyclopentadiene ug/l Hexachtoroethane ug/l Isophorne ug/l 2-Methylnaphthalene ug/l 2-Nitroeniline ug/l	7 40 30	ND (2.8) ND (0.39) ND (0.27) ND (0.21) ND (0.27) ND (0.38)	ND (2.8) ND (0.39) ND (0.28) ND (0.21) ND (0.28) ND (0.39)	ND (2.6) ND (0.37) ND (0.26) 6.2 ND (0.26) ND (0.37)	ND (2.6) ND (0.37) ND (0.26) ND (0.20) ND (0.26) ND (0.37)	ND (2.6) ND (0.37) ND (0.26) ND (0.20) ND (0.28) ND (0.37)	ND (2.7) ND (0.37) ND (0.27) ND (0.20) ND (0.27) ND (0.37)	ND (2.6) ND (0.37) ND (0.26) ND (0.20) ND (0.26) ND (0.37) ⁵	ND (2.8) ND (0.39) ND (0.28) 0.24 J ND (0.28) ND (0.39)	ND (2.8) ND (0.39) ND (0.28) ND (0.21) ND (0.28) ND (0.39)	ND (2.6) ND (0.37) ND (0.26) ND (0.20) ND (0.26) ND (0.37) ⁶	ND (2.6) ND (0.37) ND (0.26) ND (0.20) ND (0.26) ND (0.37)*	ND (2.7) ND (0.38) ND (0.27) ND (0.20) ND (0.27) ND (0.38)	ND (2.6) ND (0.37) ND (0.26) 0.78 J ND (0.26) ND (0.37) ⁶	ND (2.6) ND (0.37) ND (0.26) ND (0.20) ND (0.26) ND (0.37) *
3-Nitroaniline ugit 4-Nitroaniline ugit Naphthalene ugit Nitroberszene ugit N-Nitroso-di-n-propylamine ugit	- 300 6 10	ND (0.44) ND (0.23) ND (0.64) ^b ND (0.48)	ND (0.44) ND (0.23) ND (0.64) ND (0.48)	ND (0.42) 10.4 ND (0.61) ND (0.46)	ND (0.42) ND (0.22) ND (0.61) ND (0.46)	ND (0.42) ND (0.22) ND (0.61) ND (0.46)	ND (0.42) 2.9 ND (0.62) ⁶ ND (0.46)	ND (0.42) ND (0.22) ND (0.61) ND (0.46)	ND (0.44) 2.2 ND (0.64) ^b ND (0.48)	ND (0.44) ND (0.23) ND (0.64) ⁵ ND (0.48)	ND (0.42) ND (0.22) ND (0.61) ND (0.46)	ND (0.42) ND (0.22) ND (0.61) ND (0.46)	ND (0.43) ND (0.23) ND (0.62) ND (0.47)	ND (0.42) 2.8 ND (0.61) ND (0.46)	ND (0.42) ND (0.22) ND (0.61) ND (0.46)
N-Ntrosodiphenylamine ugit Phenanthrene ugit Pyrene ugit 1.2,4,5-Tetrachloroberozene ugit	200	ND (0.22) ND (0.17) ND (0.22) ND (0.37)	ND (0.22) 0.37 J 1.6 ND (0.37)	ND (0.21) ND (0.17) ND (0.21) ND (0.35)	ND (0.21) ND (0.17) ND (0.21) ND (0.35)	ND (0.21) ND (0.17) ND (0.21) ND (0.35)	ND (0.21) ND (0.17) ND (0.21) ND (0.36)	ND (0.21) ND (0.17) ND (0.21) 0.67 J	ND (0.22) ND (0.18) ND (0.22) ND (0.37)	ND (0.22) ND (0.18) ND (0.22) ND (0.37)	ND (0.21) ND (0.17) ND (0.21) ND (0.35)	ND (0.21) ND (0.17) ND (0.21) 0.37 J	ND (0.22) ND (0.17) ND (0.21) ND (0.36)	ND (0.21) 0.18 J ND (0.21) 1.2 J	ND (0.21) ND (0.17) ND (0.21) ND (0.35)
MS Semi-volatiles (SW846 82700 BY SI Beroo(a)anthracene up1 Beroo(a)pyrene up1 Beroo(b)fluoranthene up1	0.1 0.1	ND (0.023) ^b ND (0.033) ND (0.043)	ND (0.023) ⁵ 0.104 0.282	ND (0.022) ⁶ ND (0.032) 0.0506	ND (0.022) ND (0.032) ND (0.041)	ND (0.022) ND (0.032) ND (0.041)	ND (0.022) ^b ND (0.032) ND (0.042)	ND (0.022) ND (0.032) ND (0.041)	ND (0.023) th ND (0.033) ND (0.043)	ND (0.023) ^b ND (0.033) ND (0.043)	ND (0.022) ND (0.032) ND (0.041)	0.0268 J 0.0377 J 0.0696	ND (0.022) ^b ND (0.032) 0.0485 J	0.0483 B ¹ 0.0452 J 0.096	ND (0.022) ND (0.032) ND (0.041)
Berzo(k)fluoranthene ug/l Diberzo(a,h)anthracene ug/l Hexachtorobercene ug/l Hexachtorobutadiene ug/l Indeno(1,2,3-cd)pyrene ug/l	0.5 0.3 0.02 1	ND (0.050) ND (0.050) ND (0.011) ND (0.050) ND (0.050)	0.0821 J ND (0.060) 0.0579 ND (0.060) 0.104	ND (0.048) ND (0.048) 0.0168 ND (0.048) ND (0.048)	ND (0.048) ND (0.048) ND (0.011) ND (0.048) ND (0.048)	ND (0.048) ND (0.048) 0.0143 ND (0.048) ND (0.048)	ND (0.048) ND (0.048) ND (0.011) ND (0.048) ND (0.048)	ND (0.048) ND (0.048) ND (0.011) ND (0.048) ND (0.048)	ND (0.050) ND (0.050) 0.0506 ND (0.050) ND (0.050)	ND (0.060) ND (0.060) 0.0156 ND (0.060) ND (0.060)	ND (0.048) ND (0.048) ND (0.011) ND (0.048) ND (0.048)	ND (0.048) ND (0.048) ND (0.011) ND (0.048) ND (0.048)	ND (0.049) ND (0.049) 0.019 ND (0.049) ND (0.049)	ND (0.048) ND (0.048) ND (0.011) ND (0.048) ND (0.048)	ND (0.048) ND (0.048) ND (0.011) ND (0.048) ND (0.048)
1,4-Dioxane up1 MS Semi-volatile TIC Total TIC, Semi-Volatile up1	0.4		4.41 5.1 J	- 124.2 J	ND (0.048)		0.776	0.334 52.7 J	62.2 J	ND (0.050)	ND (0.048)	2.58 29 J	0.128 17.2 J	210 J	0.12
Metals Analysis Aluminum ug1 Artimony ug1	200	1060 s8 ft	1610	<200 <30°	3960 <8.0	<200	<200 s6.0	<200 e8.0	<200 <8.0	<200 s8.0	2250 sh 0	<200 <8.0	488	282 <120 ⁴	<200 <6.0
Asserie upl Barium upl Berylkm upl Cadmium upl	3 6000 1	1.6 <200 <1.0 <3.0 41100	1.3 269 <1.0 <3.0 127000	\$4 1420 <1.0 <3.0 522000	2.9 <200 <1.0 <3.0 24900	1 281 <1.0 <3.0 207000	22.9 <200 <1.0 <3.0 39700	<1.0 263 <1.0 <3.0 108000	1.3 451 <1.0 <3.0 280000	1.5 <200 <1.0 <3.0 55400	2.5 <200 <1.0 <3.0 17200	<1.0 296 <1.0 <3.0 165000	2.4 220 <1.0 <3.0 82600	4.1 1350 1.7 <3.0 198000	2.9 272 <1.0 <3.0 88300
Cascum light Chromium ugit Cobalt ugit Copper ugit Iron ugit	70 100 1300 300	41100 <10 <50 38.3 3440	12/000 18.6 <50 <10 761	<10 <50 32.4 13900	<10 <50 31.5 5800	20/000 <10 <50 17.9 <100	<10 <50 12.6 11000	108000 <10 <50 17 141	<10 <50 14.5 1630	<10 <50 30.8 <100 <3.0	<10 <50 13.5 2360	13.8 <50 15.6 354	<10 <50 43.2 14800	<200 ° 50.5 16.6 92700	<10 <50 30.9 25300
Lead sp1 Magnesium sp1 Marganese up1 Mercury sp1 Nickel up1	2 100	4.2 <5000 468 <0.20 13.8	35.6 <0.20 <10	116000 32400 <0.20 <10	8.6 7330 282 <0.20 <10	46000 87.6 <0.20 <10	14300 1010 <0.20 <10	35300 2280 <0.20 <10	50200 8120 <0.20 <10	18000 1786 <0.20 16.5	<5.00 <5000 194 <0.20 <10	49400 1260 <0.20 16.5	<3.0 17900 620 <0.20 <10	96100 107000 * <0.20 31.5	<3.0 23500 1410 <0.20 <10
Potassium upt Salarium upt Silver upt Sodium upt Thatium upt	40 40 50000 2	<10000 <10 <10 65100 <1.0	<10000 <10 <10 70600 <1.0	<10000 <50 ° <10 498000 <1.0	<10000 <10 <10 <10000 <1.0	<10000 <10 <10 352000 <1.0	<10000 <10 <10 289000 <1.0	<10000 <10 <10 137000 <1.0	<10000 <10 <10 <10 88500 <1.0	<10000 <10 <10 62400 <1.0	<10000 <10 <10 163000 <1.0	<10000 <10 <10 157000 <1.0	<10000 <10 <10 47100 <1.0	<10000 <200 ° <200 ° <200 ° 529000 <1.0	<10000 <10 <10 60200 <1.0
Vanedium up1 Zinc up1 General Chemistry	2000	<50 49	<50 <20	<250 ² <20	<50 54.5	<50 26.7	≪0 <20	<50 30.2	<50 <20	<50 54.6	<50 26.3	<50 <20	<50 23.6	<50 56	<50 69.2
Distagra, Amerona Jept Footboots: A stacciated CV avaisate of control in a Associated CV variable of control in a Associated CV variable of control in c This compound in It is to custate in the d succiated CV variable of control in This compound in It is countable in hou e Associated CV variable of control in g Associated CV variable of control in g Associated CV variable of control in g Associated CV variable of control in it is in the control in the control in State of the contr	mits low. mits high, sample was ND suse QC limits bias high. mits high, sample was ND. se QC limits bias high. hetroil limits high, sample was ND. its high, sample was ND. noted limits high, sample mits low. Low-level verific mits low. Low-level verific set affected analytes. Sam ig failure in the batch ass mits high, g failure in the batch was mits low. Low-level verific mits low. Low-level verific mits low. Low-level verific mits low. Low-level verific	was ND. ation was analyzed t ple was ND. ociated CCV. ciated CCV. tion was analyzed t	0	<200	<200	<200	1800	<200	<200	<200	<200	<200	<200	4600	<200
demonstrate system suitability to del failure in the batch associated CCV. I Result confirmed by reestraction our Sample reextracted outside of the in There is no sample left to reextract to Elevated sample detection limit due p Elevated detection limit due to dilut q Elevated detection limit due to dilut q Elevated detection limit due to dilut	tside of the holding time. holding time for confirmat for confirmation. e to difficult sample matrix tion required for high inte	ion. : rfering element.	corresponding												

Hess Corporation Former Port Reading Complex 750 Cliff Road Port Reading NI Table 5.1 AOC 12: Detention Basin/Smith Creek Groundwater Analytical Results

The column	Client Sample ID: Lab Sample ID:		NJ Groundwater Criteria	PER-2 JC98455-6	PER-2D JC98421-11 11/11/2019	PER-2000 JC98455-7	PER-3 JC98148-7	PER-3D JC98148-8	PER-9 JC98455-1	PER-9D JC98455-2 11/12/2019	PER-9DD JC98455-3	PER-10 JC98148-9	PER-10D JC98148-10
	Date Sampled: Matrix:			11/12/2019 Ground Water	11/11/2019 Ground Water	11/12/2019 Ground Water	11/8/2019 Ground Water	11/6/2019 Ground Water	11/12/2019 Ground Water	11/12/2019 Ground Water	11/12/2019 Ground Water	11/6/2019 Ground Water	11/6/2019 Ground Water
Company	MS Volatiles (SW846 8260C)												
Company	Acetone Berozene Removativnomethane		6000	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)
Section		ngil	1 4	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)
Company Mary Company	Bromomethane 2-Butanone (MEK)	ugili	10 300	ND (6.9)	ND (6.9)	ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (6.9)		ND (6.9)	ND (6.9)	ND (6.9)
Series 1	Carbon disulfide Carbon tetrachloride	ngili	1	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)		ND (0.55)		ND (0.55)
Company	Chlorosthane			ND (0.73)		ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)		ND (0.56) ND (0.73)		ND (0.73)	ND (0.73)
Column	Chloromethane		-	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)		ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)
Section	1,2-Dibromo-3-chloropropane Dibromochloromethane	ugil	0.02	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)
Company		ilgii		ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)	ND (0.48) ND (0.53)
Column	1,4-Dichlorobenzene	ugili	75	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)
Calebooks	1,1-Dichloroethane	ugili	50	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)
The control of the co	1,1-Dichloroethene		1	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
2 - Scholaring	trans-1,2-Dichloroethene	ngil	100	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)
Traction of the property of th	trans-1,3-Dichloropropene	ngil ngu	-	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)
The control of the co	Freon 113	ingii.		ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)
March Marc	Isopropylbenzene	ngill		ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)
The control of the co	Methylcyclohexane	ngili		ND (0.60)	ND (0.60)		ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
The control of the co	4-Methyl-2-pentanone(MIBK)	ugili		ND (1.9) ND (1.0)	ND (1.9)	ND (1.9) ND (1.0)	ND (1.9) ND (1.0)	ND (1.9)	ND (1.9) ND (1.0)		ND (1.9)	ND (1.9)	ND (1.9)
Temporary	Styrene Tert Butyl Alcohol		100 100	ND (5.8)		ND (0.70)			ND (0.70) ND (5.8)	ND (0.70) 2670	9.4 J	ND (0.70) ND (5.8)	ND (0.70)
13 13 13 13 13 13 13 13	Tetrachloroethene	ngili	1	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)
13 13 13 13 13 13 13 13		ngili	600	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)		ND (0.50)		ND (0.50)
The content	1,1,1-Trichloroethane	ngili	30	ND (0.54)		ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)			ND (0.54)
Company	Trichloroethene	ngili	1 2000	ND (0.53)	0.55 J	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)		ND (0.53)	ND (0.53)
The content	Vinyl chloride	ngili	1	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79) ND (0.78)	ND (0.79)	ND (0.79)		
West Company	p-Xvlene	nzil	1000	ND (0.59)		ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)		ND (0.59)	ND (0.59)
March Park													
Company Comp		ugil	-	0	11.5 J	0	0	0	0	0	0	0	0
Transplanter	MS Semi-volatiles (SW846 8270D)												
Tangement of the Section of the Sect	Acenaphthylene	ugil		ND (0.14)	ND (0.13)	ND (0.14)	ND (0.13)	ND (0.13)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.13)	ND (0.13)
The content	Acetophenone	ugil ugil		ND (0.21)	ND (0.20) ND (0.20)	ND (0.21) ND (0.21)	ND (0.20) ND (0.20)	ND (0.20) ND (0.20)	ND (0.21) ND (0.21)	ND (0.21) ND (0.21)	ND (0.21) ND (0.22)	ND (0.20)	ND (0.20)
Security Company Com		ugili	3	ND (0.45) ND (0.29)	ND (0.43) ND (0.28)	ND (0.45) ND (0.29)	ND (0.43) ND (0.28)	ND (0.43) ND (0.28)	ND (0.45) ND (0.29)	ND (0.45) ND (0.29)	ND (0.30)	ND (0.43) ND (0.28)	
T. Special	4-Bromophenyl phenyl ether	ngil	100	ND (0.40)	ND (0.38)	ND (0.40)	ND (0.38)	ND (0.38)	ND (0.41)	ND (0.40)	ND (0.42)	ND (0.38)	ND (0.38)
Communication		ngil	400	ND (0.21) ND (0.24)	ND (0.20) ND (0.22)	ND (0.21) ND (0.24)	ND (0.20) ND (0.22)	ND (0.20) ND (0.22)	ND (0.21) ND (0.24)	ND (0.21) ND (0.24)	ND (0.22) ND (0.24)	ND (0.20) ND (0.22)	ND (0.20) ND (0.22)
Comment	4-Chloroanline Carbazole	ugili	30	ND (0.34) ND (0.23)	ND (0.32) ND (0.22)	ND (0.34) ND (0.23)	ND (0.32) ND (0.22)	ND (0.32) ND (0.22)	ND (0.34) ND (0.23)	ND (0.34) ND (0.23)	ND (0.35) ND (0.24)	ND (0.32) ND (0.22)	ND (0.32) ND (0.22)
1000 1000		ugil		ND (0.18)		ND (0.18)	ND (0.17)	ND (0.17)			ND (0.18)	ND (0.17)	ND (0.17)
Company from shot	bis(2-Chloroethyl)ether		7				ND (0.26) ND (0.24)	ND (0.26) ND (0.24)		ND (0.28) ND (0.25)		ND (0.24)	ND (0.24)
23	4-Chlorophenyl phenyl ether		300	ND (0.37)	ND (0.35)	ND (0.37)	ND (0.35)	ND (0.35)	ND (0.37)	ND (0.37)	ND (0.38)	ND (0.35)	ND (0.35)
A. Calendon 1.5	2,6-Dinitrotoluene	ugil	- 30	ND (0.48)	ND (0.45)	ND (0.48)	ND (0.45)	ND (0.45)	ND (0.48)	ND (0.48)	ND (0.49)	ND (0.45)	ND (0.45)
Chander Part Chander	1,4-Dioxane Diberzofuran	figu	0.4										-
Table planes pd 6000 NC 251 ND 2	Di-n-butyl phthalate	ingii.		ND (0.50)	ND (0.47)	ND (0.50)	ND (0.47)	ND (0.47)	ND (0.50)	ND (0.50)	ND (0.51)	ND (0.47)	ND (0.47)
suck Explores/particles	Diethyl phthalate Dimethyl phthalate	ugil ugil		ND (0.26) ND (0.22)	ND (0.25) ND (0.21)	ND (0.26) ND (0.22)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.26) ND (0.22)	ND (0.26) ND (0.22)	ND (0.27) ND (0.22)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)
		ugili	3 300	ND (0.17)	ND (0.16)	ND (1.7) ND (0.17)	ND (1.6) ND (0.16)	ND (1.6) ND (0.16)	ND (0.17)	ND (0.17)	ND (0.18)	ND (1.6) ND (0.16)	ND (0.16)
Marginester	Hexachiorocyclopentadiene	ng/l		ND (2.8)	ND (2.6)	ND (2.8)	ND (2.6)	ND (2.6)	ND (2.8)	ND (2.8)	ND (2.9)	ND (2.6)	ND (2.6)
24	Isophorone	Ngu	40 30	ND (0.28)	ND (0.26)	ND (0.28)	ND (0.26)	ND (0.26)	ND (0.28)	ND (0.28)	ND (0.29)	ND (0.26)	ND (0.26)
Affection		ngili	-	ND (0.28) ND (0.39)	ND (0.26) ND (0.37)	ND (0.28) ND (0.39)	ND (0.26) ND (0.37)	ND (0.26) ND (0.37)	ND (0.28) ND (0.39)	ND (0.28) ND (0.39)	ND (0.29) ND (0.40)	ND (0.26) ND (0.37)	ND (0.26) ND (0.37)
Netherland	4-Nitroenline Naphthelene	ugil	300	ND (0.44) ND (0.23)	ND (0.42) ND (0.22)	ND (0.44) ND (0.23)	ND (0.42) ND (0.22)	ND (0.42) ND (0.22)	ND (0.44) ND (0.23)	ND (0.44) ND (0.23)	ND (0.45) ND (0.24)	ND (0.42) ND (0.22)	ND (0.22)
Note		ugili	6 10	ND (0.48)	ND (0.61) ND (0.46)	ND (0.64) ND (0.48)	ND (0.46)	ND (0.46)	ND (0.49)	ND (0.48)	ND (0.50)	ND (0.61) ND (0.46)	ND (0.46)
12.6.5 16.00 16.	N-Nitrosodiphenylamine Phenarthrene	ugil ugil		ND (0.18)	ND (0.17)			ND (0.21) ND (0.17)		ND (0.22) ND (0.18)	ND (0.23) ND (0.18)	ND (0.21) ND (0.17)	
Recognization Part	1,2,4,5-Tetrachlorobenzene	ugil	-	ND (0.22)	ND (0.35)	ND (0.22)	ND (0.35)	ND (0.35)	ND (0.22)	ND (0.22)	ND (0.38)	ND (0.35)	ND (0.35)
Section Sect	MS Semi-volatiles (SW846 8270D BY S	BIM)											
Band Manufacture 1	Berzo(a)pyrene	nzil	0.1	ND (0.033)	ND (0.032)	ND (0.033)	ND (0.032)	ND (0.032)	ND (0.033)	ND (0.033)	ND (0.033)	ND (0.032)	ND (0.032)
Management		ugil ugil			ND (0.041) ND (0.048)		ND (0.041) ND (0.048)	ND (0.041) ND (0.048)		ND (0.043) ND (0.060)			ND (0.041) ND (0.048)
1.4 Double			0.02	ND (0.050) ND (0.011) *		ND (0.050) ND (0.011) ⁹	ND (0.048) ND (0.011)		ND (0.049) ND (0.011)	ND (0.050)	ND (0.050) ND (0.011)	ND (0.048) ND (0.011)	ND (0.048) ND (0.011)
March Control Text Control	indeno(1,2,3-cd)pyrene			ND (0.050) ND (0.050)	ND (0.048) 0.511	ND (0.050) 0.197 B	ND (0.048) ND (0.048)		ND (0.049) ND (0.049)	ND (0.060)	ND (0.060) ND (0.060)	ND (0.048)	ND (0.048)
Titles TC, Stensviselle	MS Semi-volatile TIC		,										
According 2		ugil	-	5.1 J	4.6 J	4.4 J	0	23 J	0	23.1 J	5.2 J	67 J	43 J
Medical Company													
Accordance	Aluminum Artimony	ugil ugil	200		1520 <6.0		<200 op n	3700 sp.n		<200 48 ft		<200 e8 ft	<200 e8 ft
Comment	Arsenic Barium	ugil ligu	3 6000	2.7 <200	<200	2.9 242	3 <200	<200	23 <200	<1.0 <200	<1.0 <200	1.7 <200	<1.0 <200
Community	Cedmium	ngil ngu	1 4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Section Sect	Chromium		70	<10	262	<10	<10	11.6	<10	<10	10.6	<10	<10
Section Sect	Copper	ugili	1300	19.1	17.6	<10	<10	<10	<10	<10	32.6	<10	<10
Page	Lead	ugili	5	3.4	7.1	3.2	<3.0	<3.0	<3.0	<3.0	5.5	<3.0	<3.0
March	Manganese Mercury	ugili	2	595	152 <0.20	438	678 <0.20	281	275	87	2180	357	684
Section	Nickel Potassium	ngil Ngu	-	10.3 <10000	138 <10000	<10 <10000	<10 21900	<10 82600	<10 <10000	<10 14800	<10 11100	<10 <10000	<10 88700
This compose S S S S S S S S S	Bilver	ngil Ngu	40	<10	<10	<10	<10 <10	<10	<10	<10	<10	<10	<10
The Command Chambelly Command Chambelly Command Chambell Command Chambelly Command Chambelly Command Chambelly Command Chambelly Command Chambelly Command Chambelly Co	Sodium Thallium		50000 2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alternative Amenician legit 3000 1100 < https://doi.org/10.1001/journative-regions/ 4000 1200 14889 https://doi.org/10.1001/journative-regions/ 4000 4000 1200 4000 1200 4000 1200 https://doi.org/10.1001/journative-regions/ <a href<="" td=""><td>vaneoidh Zinc</td><td>ugil</td><td>2000</td><td></td><td><50 <20</td><td></td><td><50 <20</td><td><50 <20</td><td><90 <20</td><td><50 <20</td><td></td><td><50 <20</td><td><50 <20</td>	vaneoidh Zinc	ugil	2000		<50 <20		<50 <20	<50 <20	<90 <20	<50 <20		<50 <20	<50 <20
Associated CVV ontained of centroal limits low. Associated CVV ontained of centroal limits low. Associated CVV ontained of centroal limits low. This compound his is low testined howave of limits loan high. Associated CVV ontained of centroal limits logs, ample was ND. This compound his limits in the limits logs, and limits logs. High. Associated CVV and limit of centroal limits limits, ample was ND. This compound his limits outside en house off limits loan high, ample was ND. Associated CVV and limits of limits limits, ample was ND. Associated CVV and limits of limits limits, ample was ND. Associated CVV outside of centroal limits limits, ample was ND. Associated CVV outside of centroal limits limits, ample was ND. Instituted value, due to corresponding lainer with beach associated CVV. Instituted value, due to corresponding lainer with beach associated CVV. Associated CVV outside or corresponding lainer with beach associated CVV. Associated CVV outside or corresponding lainer with beach associated CVV. Associated CVV. Associated CVV outside or corresponding lainer with beach associated CVV.	General Chemistry												
I Result confirmed by reextraction outside of the holding time. In Sample reextracted outside of the holding time for confirmation.	a Associated CV outside of control I A sociated CV outside of control I C This compound in Sis is outside in In- C Associated CV outside of control I This compound in Sis outside in In- I associated CV outside of control I I associated CV outside of control I A sociated CV outside of control I A sociated CV outside of control I and the CV outside of control I A sociated CV outside of control I I associated CV outside of control I A sociated CV outside of control I I associated CV outside of control I I facility on the batch associated CV.	limits house Of limits house Of control louse Of mits hig control limits lo tect aff ding failu limits lo tect aff witside of utside br>utside u	igh, sample was ND. Ki limits blas high. igh, sample was ND. Kimits blas high. Ilmits blas high. Ilmits blas high. Ilmits blagh, sample was ND. Limits blagh, sample was ND. N. Low-level verification we keted analytes. Sample was ND. Low level verification we rein the batch associated of the sample was ND. W. Low-level verification we feeted analytes. Stimmet we were in the batch associated C. W. Low-level verification was Keted analytes. Stimmet we were the new law of the batch associated C. W. Low-level verification was Keted analytes. Stimmet we will be compared to the sample of the new law of the batch associated C. W. Low-level verification was the compared to the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the batch associated C. W. Low-level verification was the new law of the n	ND. CCV. CV. s analyzed to	responding								

Hess Corporation Former Port Reading Complex 750 Cliff Road Port Reading NJ Table 5.1 AOC 14a - First Tankfield Groundwater Analytical Results

TM-2

TM-3

PER-4

PER-5

LPG-1

LPG-2

Client Sample ID:

Lab Sample ID: Date Sampled: Matrix:		NJ Groundwater								
		Criteria	JC97978-15	JC97978-16	JC97978-11	JC97978-12	JC97978-13	JC97978-14	JC98258-7	JC98421-4
Matrix:			11/4/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019	11/8/2019	11/11/2019
			Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
MS Volatiles (SW846 8260C)										
mo volatiles (517540 52555)										
Acetone	ug/l	6000	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Benzene	ug/l	1	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	17.7	ND (0.43)	ND (0.43)	ND (0.43)
Bromochloromethane	ug/l	-	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
Bromodichloromethane Bromoform	ug/l	1 4	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)
Bromonethane	ug/l ug/l	10	ND (0.63)	ND (0.63) ND (1.6)	ND (0.63)	ND (0.63)	ND (0.63) ND (1.6)	ND (0.63)	ND (0.63) ND (1.6)	ND (0.63) ND (1.6)
2-Butanone (MEK)	ug/l	300	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)	ND (6.9)
Carbon disulfide	ug/l	700	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)
Carbon tetrachloride	ug/l	1	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55) b	ND (0.55)
Chlorobenzene	ug/l	50	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
Chloroethane Chloroform	ug/l	70	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73) ND (0.50)	ND (0.73)	ND (0.73)	ND (0.73)
Chloromethane	ug/l ug/l	-	ND (0.50) ND (0.76)	ND (0.50) ND (0.76)	ND (0.50) ND (0.76)	ND (0.50) ND (0.76)	ND (0.50)	ND (0.50) ND (0.76) ^a	ND (0.50) ND (0.76)	ND (0.50) ND (0.76)
Cyclohexane	ug/l	-	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)
Dibromochloromethane	ug/l	1	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
1,2-Dibromoethane	ug/l	0.03	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
1,2-Dichlorobenzene 1,3-Dichlorobenzene	ug/l	600	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)
1,3-Dichlorobenzene 1.4-Dichlorobenzene	ug/l ug/l	75	ND (0.54)	ND (0.54) ND (0.51)	ND (0.54)	ND (0.54) ND (0.51)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54) ND (0.51)
Dichlorodifluoromethane	ug/l	1000	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)
1,1-Dichloroethane	ug/l	50	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)
1,2-Dichloroethane	ug/l	2	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
1,1-Dichloroethene	ug/l	1	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
cis-1,2-Dichloroethene	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
trans-1,2-Dichloroethene 1,2-Dichloropropane	ug/l ug/l	100	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)
1,2-Dichloropropane cis-1,3-Dichloropropene	ug/I	- 1	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)
trans-1,3-Dichloropropene	ug/l	-	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)
Ethylbenzene	ug/l	700	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
Freon 113	ug/l	20000	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)
2-Hexanone	ug/l	40	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Isopropylbenzene Methyl Acetate	ug/l	700 7000	ND (0.65) ND (0.80) ^a	ND (0.65) ND (0.80) ^a	ND (0.65) ND (0.80) ^a	ND (0.65) ND (0.80) ^a	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)
Methyl Acetate Methylcyclohexane	ug/l ug/l	-	ND (0.80) - ND (0.60)	ND (0.80) - ND (0.60)	ND (0.80) - ND (0.60)	ND (0.80) - ND (0.60)	ND (0.80) ND (0.60)	ND (0.80) ND (0.60)	ND (0.80) ND (0.60)	ND (0.80) ND (0.60)
Methyl Tert Butyl Ether	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	0.60 J	3	ND (0.51)	1.1	ND (0.51)
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Styrene	ug/l	100	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)
Tert Butyl Alcohol	ug/l	100	ND (5.8)	ND (5.8)	ND (5.8)	ND (5.8)	ND (5.8)	ND (5.8)	20.4	ND (5.8)
1,1,2,2-Tetrachloroethane Tetrachloroethene	ug/l ug/l	1	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)	ND (0.65) ND (0.90)
Toluene	ug/l	600	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
1,2,3-Trichlorobenzene	ug/l	-	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
1,2,4-Trichlorobenzene	ug/l	9	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
1,1,1-Trichloroethane	ug/l	30	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
1,1,2-Trichloroethane	ug/l	3	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
Trichloroethene Trichlorofluoromethane	ug/l ug/l	1 2000	ND (0.53) ND (0.84)	ND (0.53) ND (0.84)	ND (0.53) ND (0.84)	ND (0.53) ND (0.84)	ND (0.53) ND (0.84)	ND (0.53) ND (0.84)	ND (0.53) ND (0.84)	ND (0.53) ND (0.84)
Vinyl chloride	ug/l	1	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)
m,p-Xylene	ug/l	-	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)
o-Xylene	ug/l	-	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
Xylene (total)	ug/l	1000	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
MS Volatile TIC										
MS Volatile TIC										
Total TIC, Volatile	ug/l	-	0	5.7 J	0	0	0	0	11.9 J	0
						•	•			
MS Semi-volatiles (SW846 8270D)										
Acenaphthene										
	ug/l	400	ND (0.18)	ND (0.18)	ND (0.19)	ND (0.18)	ND (0.18)	ND (0.18)	5.9	ND (0.18)
Acenaphthylene	ug/l ug/l	400	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	ND (0.19) ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	5.9 ND (0.13)	ND (0.18) ND (0.13)
Acenaphthylene Acetophenone	ug/l ug/l	700	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.21)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)
Acenaphthylene Acetophenone Anthracene	ug/l ug/l ug/l	- 700 2000	ND (0.13) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20)	ND (0.13) ND (0.21) ND (0.21)	ND (0.13) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20)
Acenaphthylene Acetophenone Anthracene Atrazine	ug/l ug/l ug/l ug/l	- 700 2000 3	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.21) ND (0.21) ND (0.44) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43)	ND (0.13) ND (0.20) ND (0.20) ND (0.43)
Acenaphthylene Acetophenone Anthracene Artzine Benzaldehyde	ug/l ug/l ug/l ug/l ug/l	- 700 2000	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28)	ND (0.13) ND (0.21) ND (0.21) ND (0.44) ^b ND (0.29)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28)
Acenaphthylene Acetophenone Anthracene Atrazine	ug/l ug/l ug/l ug/l	- 700 2000 3	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.21) ND (0.21) ND (0.44) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b	ND (0.13) ND (0.20) ND (0.20) ND (0.43)	ND (0.13) ND (0.20) ND (0.20) ND (0.43)
Acenaphthylene Acetophenone Anthriacene Ahrazine Benzaldehyde Benzalcylyde Benzalcylyde Benzolg,h,i)perylene 4-Bromopheny phenyl ether Bulyt benzyl phthalate	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 - - - 100	ND (0.13) ND (0.20) ND (0.20) ND (0.43) b ND (0.28) ND (0.32) ND (0.38) ND (0.44)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) b ND (0.28) ND (0.33) ND (0.39) ND (0.44)	ND (0.13) ND (0.21) ND (0.21) ND (0.24) ND (0.29) ND (0.34) ND (0.40) ND (0.45)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28) ND (0.33) ND (0.39) ND (0.44)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) b ND (0.28) ND (0.32) ND (0.38) ND (0.44)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) b ND (0.28) ND (0.32) ND (0.38) ND (0.44)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.43) ND (0.32) ND (0.32) ND (0.38) ND (0.44)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.34)
Acenaphthylene Acetophenone Anthracene Antracene Benzaldehyde Benzaldehyde Benzaldehyde Benzaldehyde Benzuldehyde Benzulde	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 100 400	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.38) ND (0.44) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.33) ND (0.39) ND (0.44) ND (0.20)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.44) ND (0.29) ND (0.34) ND (0.40) ND (0.45) ND (0.21)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.33) ND (0.39) ND (0.44) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38) ND (0.44) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ⁵ ND (0.28) ND (0.32) ND (0.32) ND (0.38) ND (0.44) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38) ND (0.44) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.32) ND (0.38) 0.44 J ND (0.20)
Acenaphthylene Acetophenone Anthriacene Antriacene Benzaldehyde	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 100 400 600	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.32) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.44) ND (0.20) ND (0.23)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.29) ND (0.29) ND (0.34) ND (0.40) ND (0.45) ND (0.45) ND (0.21) ND (0.23)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.34) ND (0.44) ND (0.20) ND (0.23)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.32) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.32) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.38) 0.44 J ND (0.20) ND (0.22)
Acetophthylene Acetophenone Anthracene Altrazine Benzaldehyde Benzolg h.lipenylene 4-Bromophenyl phenyl ether Buty benzy hihalate 1,1-Bighenyl 2-Chloronaphthalene 4-Chloronaphthalene	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 100 400 600 30	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) * ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.13) ND (0.20) ND (0.20) ND (0.24) ND (0.23) ND (0.43) ND (0.39) ND (0.39) ND (0.44) ND (0.20) ND (0.23) ND (0.23) ND (0.33)	ND (0.13) ND (0.21) ND (0.21) ND (0.24) ND (0.44) ND (0.29) ND (0.34) ND (0.40) ND (0.45) ND (0.45) ND (0.21) ND (0.23) ND (0.34)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) th ND (0.28) ND (0.39) ND (0.39) ND (0.44) ND (0.20) ND (0.23) ND (0.33) ND (0.33)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28) ND (0.28) ND (0.32) ND (0.38) ND (0.34) ND (0.39) ND (0.20) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38) 0.44 J ND (0.20) ND (0.20) ND (0.22) ND (0.32)
Acenaphthylene Acetophenone Anthriacene Antriacene Benzaldehyde	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 100 400 600	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.32) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.44) ND (0.20) ND (0.23)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.29) ND (0.29) ND (0.34) ND (0.40) ND (0.45) ND (0.45) ND (0.21) ND (0.23)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.34) ND (0.44) ND (0.20) ND (0.23)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ¹⁶ ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.20) ND (0.20) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.22)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ^b ND (0.28) ND (0.32) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.22) ND (0.32) ND (0.32) ND (0.32)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.20)	ND (0.13) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.38) 0.44 J ND (0.20) ND (0.22)
Aceraphthylene Acetophenone Anthracene Antracene Alfazine Benzaldehyde Benzaldehyde Benzaldehyde Benzaldehyde 4-Bromophenyl phenyl ether Bulyl benzyl phthalate 1,1'-Biphenyl 2-Chiloronaphthalene 4-Chromaphthalene Carbazole Caprolactam Chrysene	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 100 400 600 30	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ¹⁶ ND (0.28) ND (0.32) ND (0.32) ND (0.44) ND (0.20) ND (0.22) ND (0.27) ND (0.27)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.24) ND (0.28) ND (0.28) ND (0.33) ND (0.33) ND (0.39) ND (0.44) ND (0.20) ND (0.20) ND (0.23) ND (0.22) ND (0.33) ND (0.22) ND (0.62) ND (0.62) ND (0.62) ND (0.17)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.24) ND (0.34) ND (0.34) ND (0.34) ND (0.45) ND (0.21) ND (0.23) ND (0.24) ND (0.27)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ⁸ ND (0.28) ND (0.33) ND (0.33) ND (0.44) ND (0.20) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.27) ND (0.27)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ⁸ ND (0.32) ND (0.32) ND (0.32) ND (0.44) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.27) ND (0.32) ND (0.32) ND (0.32) ND (0.33)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.24) ND (0.24) ND (0.32) ND (0.32) ND (0.32) ND (0.34) ND (0.20) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.52) ND (0.52)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.43) ND (0.32) ND (0.32) ND (0.34) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.27)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.32) ND (0.30) 0.44 J ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.52) ND (0.52) ND (0.52) ND (0.52) ND (0.52)
Acenaphthylene Acetophenone Anthracene Antracene Antracene Benzaldshyde Laberophyde Laberophyde Achiconalline Carbacole Caprolactam Chrysene	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 100 400 600 30 - 4000 5	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.28) ND (0.38) ND (0.32) ND (0.38) ND (0.44) ND (0.22) ND (0.23) ND (0.24) ND (0.25) ND (0.25)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.44) ND (0.23) ND (0.21) ND (0.22) ND (0.62) ND (0.17) ND (0.27)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.49) ND (0.49) ND (0.49) ND (0.49) ND (0.45) ND (0.21) ND (0.21) ND (0.23) ND (0.34) ND (0.34) ND (0.34) ND (0.34) ND (0.34) ND (0.34) ND (0.35) ND (0.36) ND (0.37) ND (0.38)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.23) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.44) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.25) ND (0.25) ND (0.27) ND (0.52) ND (0.52) ND (0.52)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.38) ND (0.32) ND (0.38) ND (0.44) ND (0.22)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.28) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.21) ND (0.22) ND (0.21) ND (0.21) ND (0.21) ND (0.22) ND (0.22) ND (0.23) ND (0.23) ND (0.24)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.20) ND (0.20) ND (0.22)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.43) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.32)
Acetaphthylene Acetaphthylene Acetaphenone Antracene Altrazine Benzaldehyde Benzolg h.l)penylene 4-Bromophenyl phenyl either Butyl benzy hihalate 1,1-Sighenyl 2-Chloronaphthalene 4-Chloroaphthalene Carbazole Caprolactam Chnysene bis(2-Chloroethxy)methane bis(2-Chloroethxy)methane	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 3 100 400 600 30 4000 5 - 7	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ¹⁶ ND (0.28) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.21) ND (0.22) ND (0.21) ND (0.24)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.43) ND (0.33) ND (0.33) ND (0.33) ND (0.39) ND (0.44) ND (0.20) ND (0.23) ND (0.23) ND (0.23) ND (0.33) ND (0.21) ND (0.21) ND (0.27) ND (0.27) ND (0.24)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.44) ND (0.29) ND (0.34) ND (0.45) ND (0.45) ND (0.21) ND (0.21) ND (0.23) ND (0.34) ND (0.23) ND (0.34) ND (0.23) ND (0.34) ND (0.23) ND (0.34) ND (0.25)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.24) ND (0.43) ND (0.33) ND (0.33) ND (0.33) ND (0.44) ND (0.20) ND (0.23) ND (0.33) ND (0.23) ND (0.23) ND (0.21) ND (0.21) ND (0.22) ND (0.27) ND (0.27) ND (0.24)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.24) ND (0.24) ND (0.32) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.24)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.43) ND (0.32) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.24)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.22) ND (0.32)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.43) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.32) ND (0.22) ND (0.23)
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Acenaphthylene Acetophonone Anthriacene Antraine Benzaldehyde Benzo(g.h.i)perylene 4-Bromophenyl phenyl ether Butyl benzy halbalate 1,1-Biphenyl 2-Chloronaphthalene 4-Chloronalline Garbazole Caprolactam Chrysene bis(2-Chloroethoxy)methane bis(2-Chloroethoxy)methane bis(2-Chloroethoxy)methane bis(2-Chloroethoxy)methane	ugh	- 700 2000 3 3	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.23) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.38) ND (0.44) ND (0.22) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.21) ND (0.24) ND (0.24) ND (0.38)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.33) ND (0.39) ND (0.44) ND (0.20) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.22) ND (0.22) ND (0.27) ND (0.17) ND (0.27) ND (0.27) ND (0.24) ND (0.24) ND (0.39)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24)* ND (0.29) ND (0.49) ND (0.49) ND (0.40) ND (0.45) ND (0.45) ND (0.23) ND (0.33) ND (0.34) ND (0.23) ND (0.34) ND (0.23) ND (0.34) ND (0.23) ND (0.34) ND (0.23) ND (0.54) ND (0.54) ND (0.55) ND (0.64) ND (0.25) ND (0.64)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.33) ND (0.33) ND (0.39) ND (0.44) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.23) ND (0.22) ND (0.22) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.24) ND (0.24) ND (0.39)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.32) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32) ND (0.33)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.22) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.24) ND (0.38)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.22) ND (0.32) ND (0.33)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.43) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.22) ND (0.23) ND (0.24) ND (0.24) ND (0.24)
Acercaphthylene Acercaphenone Anteriorene Anteriorene Altrazine Benza(de), in)perylene 4-Bromophenyl phenyl ether Bully benzy phhalate 1,1'-Biphenyl 2-Chioronaphthalene 4-Chromaphthalene 4-Chioronaphthalene Carbazole Caprolactam Chrysene bis(2-Chioroethoxylymethane) bis(2-Chiorothylyether 2,2'-Oxylsi(1-chioropropane) 4-Chiorophylyphenyl phenyl ether 2,4-Oxintroclune	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	- 700 2000 3 3 100 400 600 30 7 4000 5 1 - 7 300 300 300	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.38) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.52) ND (0.53) ND (0.28) ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.38) ND (0.53)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.39) ND (0.44) ND (0.20) ND (0.25) ND (0.25) ND (0.25) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.24) ND (0.39) ND (0.39) ND (0.53)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.24) ND (0.29) ND (0.34) ND (0.34) ND (0.40) ND (0.21) ND (0.21) ND (0.23) ND (0.24) ND (0.25) ND (0.26) ND (0.26) ND (0.27) ND (0.28) ND (0.25) ND (0.40) ND (0.36) ND (0.55)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.33) ND (0.33) ND (0.39) ND (0.44) ND (0.20) ND (0.20) ND (0.23) ND (0.23) ND (0.23) ND (0.22) ND (0.52) ND (0.52) ND (0.52) ND (0.52) ND (0.52) ND (0.52) ND (0.53)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.32) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.21) ND (0.28) ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.38)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.52) ND (0.52) ND (0.53) ND (0.26) ND (0.38)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.22) ND (0.21) ND (0.28) ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.38) ND (0.38) ND (0.38)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.21) ND (0.25) ND (0.26) ND (0.26) ND (0.28) ND (0.35) ND (0.35) ND (0.35)
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Acenaptitylene Acetophonone Antizione Antizione Antizione Antizione Benzaldelyde ydelydelydelydelydelydelydelydel	Dept	- 700 2000 3 3 100 4000 30 700 4000 5 - 7 7 300 100 6000 - 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.23) ND (0.24) ND (0.26) ND (0.26) ND (0.26) ND (0.27) ND (0.28) ND (0.28) ND (0.29) ND (0.29) ND (0.21) ND (0.21) ND (0.25) ND (0.25) ND (0.25) ND (0.25) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.28) ND (0.28) ND (0.29) ND (0.21) ND (1.6) ND (0.26) ND (0.26) ND (0.26) ND (0.26) ND (0.27) ND (0.26) ND (0.27) ND (0.26) ND (0.26) ND (0.26) ND (0.27) ND (0.26) ND (0.26) ND (0.27)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.28) ND (0.33) ND (0.33) ND (0.39) ND (0.37) ND (0.21) ND (0.22) ND (0.23) ND (0.22) ND (0.23) ND (0.22) ND (0.23) ND (0.22) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.28) ND (0.38) ND (0.48) ND (0.48) ND (0.48) ND (0.48) ND (0.21) ND (0.16) ND (0.16) ND (0.16) ND (0.16) ND (0.17) ND (0.27)	ND (0.13) ND (0.21) ND (0.21) ND (0.21) ND (0.24) ND (0.24) ND (0.24) ND (0.29) ND (0.34) ND (0.34) ND (0.34) ND (0.34) ND (0.35) ND (0.35) ND (0.37) ND (0.38) ND (0.39) ND (0.39) ND (0.39) ND (0.39) ND (0.39) ND (0.39) ND (0.21) ND (0.23) ND (0.39) ND (0.21) ND (0.23) ND (0.39) ND (0.21) ND (0.27) ND (0.28) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.28) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.28) ND (0.27) ND (0.27) ND (0.26)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.23) ND (0.28) ND (0.28) ND (0.33) ND (0.39) ND (0.39) ND (0.39) ND (0.37) ND (0.27) ND (0.28) ND (0.29) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.21) ND (0.27)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.28) ND (0.28) ND (0.28) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.32) ND (0.33) ND (0.38) ND (0.38) ND (0.38) ND (0.38) ND (0.38) ND (0.47) ND (0.47) ND (0.47) ND (0.21) ND (0.47) ND (0.25) ND (0.47) ND (0.53) ND (0.55) ND (0.56) ND (0.57) ND (0.26) ND (0.26) ND (0.37)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.28) ND (0.38) ND (0.38) ND (0.38) ND (0.38) ND (0.38) ND (0.44) ND (0.20) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.52) ND (0.52) ND (0.47) ND (0.26) ND (0.45) ND (0.45) ND (0.45) ND (0.47) ND (0.21) ND (0.26) ND (0.26) ND (0.27) ND (0.26) ND (0.27) ND (0.28) ND (0.28) ND (0.29) ND (0.28) ND (0.29) ND (0.28) ND (0.28) ND (0.29) ND (0.28) ND (0.29) ND (0.28) ND (0.29) ND (0.26) ND (0.26) ND (0.26) ND (0.26) ND (0.27) ND (0.26) ND (0.27) ND (0.26) ND (0.27) ND (0.26) ND (0.27) ND (0.28)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.28) ND (0.32) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.23) ND (0.24) ND (0.24) ND (0.24) ND (0.25) ND (0.35) ND (0.35) ND (0.35) ND (0.35) ND (0.35) ND (0.36) ND (0.47) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.27) ND (0.28) ND (0.37) ND (0.37) ND (0.38) ND (0.37) ND (0.26) ND (0.26) ND (0.27) ND (0.26) ND (0.27) ND (0.26) ND (0.27) ND (0.27) ND (0.28) ND (0.27) ND (0.28) ND (0.29) ND (0.29) ND (0.20) ND (0.26) ND (0.26) ND (0.27) ND (0.26) ND (0.26) ND (0.27) ND (0.26)	ND (0.13) ND (0.20) ND (0.20) ND (0.20) ND (0.20) ND (0.43) ND (0.32) ND (0.33) ND (0.34) ND (0.34) ND (0.35) ND (0.36) ND (0.36) ND (0.36) ND (0.37) ND (0.32) ND (0.37)

AOC 14a - First Tankfield Groundwater Analytical Results

Lab Sample Color Color Lab Sample Lab Sample Color Lab Sample L	Client Sample ID:			LPG-1	LPG-2	TM-1	TM-2	TM-3	TM-4	PER-4	PER-5
Date Samples	Lab Sample ID:		NJ Groundwater Criteria	JC97978-15	JC97978-16	JC97978-11	JC97978-12	JC97978-13	JC97978-14	JC98258-7	JC98421-4
	Date Sampled:			11/4/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019	11/4/2019	11/8/2019	11/11/2019
\$2	Matrix:			Ground Water							
15	yrene	ug/l	200	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.21)				
Marcocolpareminance Mgs	,2,4,5-Tetrachlorobenzene	ug/l	-	ND (0.35)	ND (0.36)	ND (0.37)	ND (0.36)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)
March Marc				, ,							
No. 1.00 No.	MS Semi-volatiles (SW846 8270D BY S	SIM)									
Interest plymane	tonzo(o)onthrocono	und.	0.1	ND (0.022)	ND (0.022) b						
	()			()			(, , ,				(, , ,
No. 1964 No.											
No Code No	()										
Marcinam											
## A-Diocent Maj Maj											
Semi-volatile TiC Part P									. ,		ND (0.048)
	,4-Dioxane	ug/l	0.4	ND (0.048)	ND (0.048)	ND (0.050)	ND (0.048)	ND (0.048)	ND (0.048)	0.0879 J	ND (0.048)
	IS Semi-volatile TIC										
Authmony 0g1 6 46.0 46	otal TIC, Semi-Volatile	ug/l	-	0	0	10.9 J	0	0	0	0	24.9 J
Authinium											
untimony ggl 6 ≪6.0 ≪	Metals Analysis										
Averagin Ogf 3	Aluminum	ug/l	200	1160	<200	212	<200	<200	250	240	<200
September Sept	intimony	ug/l	6	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0
	rsenic	ug/l	3	1.5	1.6	1.1	19.2	8.9	1.6	31.1	<1.0
Seminar Semi	Sarium	ug/l	6000	<200	208	<200	<200	<200	<200	<200	<200
Selection Ogf -	Beryllium	ug/l	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium ugh 70 <10 <10 <10 <10 <10 <10 <10 <10 <10 <1	Cadmium	ug/l	4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.4	<3.0
2-balt 0gh 100 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <50 <	Calcium	ug/l		<5000	59400	32100	56900	36300	11600	67200	53900
Separal Sepa	Chromium	ug/l	70	<10	<10	<10	<10	<10	<10	<10	<10
Copper	Cobalt		100	<50	<50	<50	<50	<50	<50	<50	<50
Second S											
eed ugh 5 5.2 <3.0											
Adaptiesium ugfl - <5000 33300 17000 28900 14900 <5000 74200 9080 Anaganese ugfl 50 52.7 1250 5820 2590 3290 786 382 <15 Afercury ugfl 10 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20											
Anganese Ug1 50 \$2.7 \$1250 \$620 \$2590 \$3290 786 \$32 <15											
	•										
Polassium Ugf											
Selentium Ugh 40 410											
odum ugf 50000 <10000 445000 178000 63600 41500 <10000 1050000 18800 hallium ugf 2 <1.0											
hallium ugl 2 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0											
anadium ugl - <50 <50 <50 <50 <50 <50 <50 <50 <50 <50											
inc ugf 2000 <20 <20 36.3 <20 <20 <20 <20 <35											
ioneral Chemistry											
	inc	ug/l	2000	<20	<20	36.3	<20	<20	<20	<20	35
itrore Ammonia unii 3000 <200 3700 300 2100 4400 390 2700 <200	eneral Chemistry										
	litrogen, Ammonia	ug/l	3000	<200	3700	300	2100	4400	380	3700	<200

Footnotes:

- Footnotes:

 a Associated CCV outside of control limits low.
 b Associated CCV outside of control limits ligh, sample was ND.
 c This compound in BS is outside in house QC limits bias high.
 d Associated CCV outside of control limits high, sample was ND.
 This compound in BS is outside in house QC limits bias high.
 e Associated CCV and BS outside of control limits high, sample was ND.
 f This compound in BS is outside in house QC limits bias high.
 e Associated CCV outside of control limits high, sample was ND.
 g Associated CCV outside of control limits high, sample was ND.
 g Associated CCV outside of control limits high, sample was ND.
 h Associated CCV outside of control limits high, sample was ND.
 i Estimated value, due to corresponding failure in the batch associated CCV.
 J Associated CCV outside of control limits high, sample was ND.
 i Estimated value, due to corresponding failure in the batch associated CCV.
 J Associated CCV outside of control limits high, set with a success of the control limits high.
 Estimated value, due to corresponding failure in the batch associated CCV.
 I Resoult confirmed by reextraction outside of the holding time.
 m Sample reextracted outside of the holding time for confirmation.
 n There is no sample left to restract of confirmation.
 o Elevated sample detection limit due to difficult sample matrix.
 p Elevated detection limit due to dillution required for high interfering element.
 q Elevated detection limit due to dillution required for matrix interference.

AOC 16b - Marine Terminal Loading Area Groundwater Analytical Results

PER-7

Client Sample ID:			PER-7	PER-8	TL-1	TL-2	TL-3
Lab Sample ID:		NJ Groundwater Criteria	JC98148-4	JC98148-5	JC98148-1	JC98148-2	JC98148-3
Date Sampled:		No Groundwater Oriteria	11/6/2019	11/6/2019	11/6/2019	11/6/2019	11/6/2019
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
IS Volatiles (SW846 8260C)							
cetone	ug/l	6000	ND (6.0)	ND (6.0)	6.2 J	10.1	ND (6.0)
Benzene	ug/l	1	ND (0.43)	ND (0.43)	ND (0.43)	39	0.75
Bromochloromethane	ug/l	-	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
Bromodichloromethane	ug/l	1	ND (0.58)	ND (0.58)	ND (0.58)	ND (0.58)	ND (0.58)
Bromoform	ug/l	4	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)
Bromomethane	ug/l	10	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)
		300	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6)	ND (1.6) ND (6.9)	ND (1.6)
2-Butanone (MEK)	ug/l						
Carbon disulfide	ug/l	700	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)
Carbon tetrachloride	ug/l	1	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)
Chlorobenzene	ug/l	50	ND (0.56)	ND (0.56)	ND (0.56)	0.66 J	12.1
Chloroethane	ug/l	•	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
Chloroform	ug/l	70	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Chloromethane	ug/l	•	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)
Cyclohexane	ug/l	-	ND (0.78)	ND (0.78)	1.1 J	65.5	ND (0.78)
,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)
Dibromochloromethane	ug/l	1	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
,2-Dibromoethane	ug/l	0.03	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
,2-Dichlorobenzene	ug/l	600	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
,3-Dichlorobenzene	ug/l	600	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
,4-Dichlorobenzene	ug/l	75	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	1.4
Dichlorodifluoromethane	ug/l	1000	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)
,1-Dichloroethane	ug/l	50	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)
,2-Dichloroethane	ug/l	2	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
,1-Dichloroethene	ug/l	1	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
is-1,2-Dichloroethene	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
rans-1,2-Dichloroethene	ug/l	100	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
I,2-Dichloropropane	ug/l	1	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
sis-1,3-Dichloropropene	ug/l	-	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)
rans-1,3-Dichloropropene	ug/l	-	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)
Ethylbenzene	ug/l	700	ND (0.43)	ND (0.43)	ND (0.43) ND (0.60)	4.7	ND (0.43) ND (0.60)
Freon 113	ug/l	20000	ND (0.80)	ND (0.60)	ND (0.60)	4.7 ND (1.9)	ND (0.60)
2-Hexanone	ug/l	40	ND (2.0)	ND (1.9) ND (2.0)	ND (2.0)	ND (1.9)	ND (1.9)
		700	ND (0.65)	ND (0.65)	ND (0.65)	68.2	20
sopropylbenzene Methyl Acetate	ug/l	7000	ND (0.80)	ND (0.80)	ND (0.80)	ND (0.80)	ND (0.80)
Methylcyclohexane	ug/l	7000		. ,			
	ug/l		ND (0.60)	ND (0.60)	ND (0.60)	37.9	ND (0.60)
Methyl Tert Butyl Ether	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Styrene	ug/l	100	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)
ert Butyl Alcohol	ug/l	100	ND (5.8)	ND (5.8)	15	17.6	ND (5.8)
,1,2,2-Tetrachloroethane	ug/l	1	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)
Tetrachloroethene	ug/l	1	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)
Toluene	ug/l	600	ND (0.53)	ND (0.53)	ND (0.53)	2.9	ND (0.53)
,2,3-Trichlorobenzene	ug/l	•	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
,2,4-Trichlorobenzene	ug/l	9	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
,1,1-Trichloroethane	ug/l	30	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
,1,2-Trichloroethane	ug/l	3	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
richloroethene	ug/l	1	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
richlorofluoromethane	ug/l	2000	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)
/inyl chloride	ug/l	1	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)
n,p-Xylene	ug/l		ND (0.78)	ND (0.78)	ND (0.78)	2.4	ND (0.78)
-Xylene	ug/l		ND (0.59)	ND (0.59)	ND (0.59)	2.4	ND (0.59)
(ylene (total)	ug/l	1000	ND (0.59)	ND (0.59)	ND (0.59)	4.8	ND (0.59)
, , ,			()	(,	(/	1	(,
MS Volatile TIC							
io voidino rio							
otal TIC, Volatile	ug/l	-	0	0	14.8 J	3406 J	243.4 J
				·			
IS Semi-volatiles (SW846 8270D)							
						•	
cenaphthene	ug/l	400	ND (0.18)	ND (0.18)	ND (0.18)	0.46 J	1.5
cenaphthylene	ug/l	-	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.16)
cetophenone	ug/l	700	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.24)
unthracene	ug/l	2000	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.25)
Atrazine	ug/l	3	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.53)
Benzaldehyde	ug/l	•	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.34)
Benzo(g,h,i)perylene	ug/l	-	ND (0.32)	ND (0.32)	ND (0.33)	ND (0.32)	ND (0.40)
-Bromophenyl phenyl ether	ug/l	•	ND (0.38)	ND (0.38)	ND (0.39)	ND (0.38)	ND (0.48)
Butyl benzyl phthalate	ug/l	100	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.54)
,1'-Biphenyl	ug/l	400	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.25)
-Chloronaphthalene	ug/l	600	ND (0.22)	ND (0.22)	ND (0.23)	ND (0.22)	ND (0.28)
-Chloroaniline	ug/l	30	ND (0.32)	ND (0.32)	ND (0.33)	ND (0.32)	ND (0.40)
Carbazole	ug/l	-	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.27)
aprolactam	ug/l	4000	ND (0.62) b	ND (0.62) b	ND (0.62) b	ND (0.62) b	ND (0.76) b
hrysene	ug/l	5	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.21)
is(2-Chloroethoxy)methane	ug/l	-	ND (0.26)	ND (0.26)	ND (0.27)	ND (0.26)	ND (0.33)
is(2-Chloroethyl)ether	ug/l	7	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.29)
2'-Oxybis(1-chloropropane)	ug/l	300	ND (0.38)	ND (0.38)	ND (0.39)	ND (0.38)	ND (0.47)
-Chlorophenyl phenyl ether		-	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.47) ND (0.43)
,4-Dinitrotoluene	ug/l	-	ND (0.53) h	ND (0.35) ND (0.53) h	ND (0.35) ND (0.53) ^h	ND (0.35) ND (0.53) h	ND (0.43) ND (0.65) ^h
	ug/l						
,6-Dinitrotoluene	ug/l	- 20	ND (0.45)	ND (0.45)	ND (0.46)	ND (0.45)	ND (0.56)
,3'-Dichlorobenzidine	ug/l	30	ND (0.48)	ND (0.48)	ND (0.49)	ND (0.48)	ND (0.60)
,4-Dioxane	ug/l	0.4	-				
bibenzofuran	ug/l		ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	1.0 J
Di-n-butyl phthalate	ug/l	700	ND (0.47)	ND (0.47)	ND (0.48)	ND (0.47)	ND (0.58)
Di-n-octyl phthalate	ug/l	100	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.28)
Diethyl phthalate	ug/l	6000	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.31)
Dimethyl phthalate	ug/l	•	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.26)
ois(2-Ethylhexyl)phthalate	ug/l	3	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.9)
	_						

AOC 16b - Marine Terminal Loading Area Groundwater Analytical Results

Client Sample ID:			PER-7	PER-8	TL-1	TL-2	TL-3
Lab Sample ID:		NJ Groundwater Criteria	JC98148-4	JC98148-5	JC98148-1	JC98148-2	JC98148-3
Date Sampled:		NJ Groundwater Criteria	11/6/2019	11/6/2019	11/6/2019	11/6/2019	11/6/2019
Matrix:			Ground Water				
Fluoranthene	ug/l	300	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	0.26 J
Fluorene	ug/l	300	ND (0.16)	ND (0.16)	ND (0.16)	0.63 J	0.72 J
Hexachlorocyclopentadiene	ug/l	40	ND (2.6)	ND (2.6)	ND (2.7)	ND (2.6)	ND (3.3)
Hexachloroethane	ug/l	7	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.46)
Isophorone	ug/l	40	ND (0.26)	ND (0.26)	ND (0.27)	ND (0.26)	ND (0.33)
2-Methylnaphthalene	ug/l	30	ND (0.20)	ND (0.20)	ND (0.20)	10.5	ND (0.25)
2-Nitroaniline	ug/l	-	ND (0.26)	ND (0.26)	ND (0.27)	ND (0.26)	ND (0.33)
3-Nitroaniline	ug/l	-	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.46)
4-Nitroaniline	ug/l	-	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.52)
Naphthalene	ug/l	300	ND (0.22)	ND (0.22)	ND (0.22)	10.4	ND (0.27)
Nitrobenzene	ug/l	6	ND (0.61)	ND (0.61)	ND (0.62)	ND (0.61)	ND (0.76)
N-Nitroso-di-n-propylamine	ug/l	10	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.57)
N-Nitrosodiphenylamine	ug/l	10	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.26)
Phenanthrene	ug/l	-	ND (0.17)	ND (0.17)	ND (0.17)	0.36 J	ND (0.21)
Pyrene	ug/l	200	ND (0.21) h	ND (0.21) h	ND (0.21) h	ND (0.21) h	0.34 J ^k
1,2,4,5-Tetrachlorobenzene	ug/l	•	ND (0.35)	ND (0.35)	ND (0.36)	ND (0.35)	ND (0.44)

MS Semi-volatiles (SW846 8270D BY SIM)

Benzo(a)anthracene	ug/l	0.1	ND (0.022)	0.182	0.163	0.159	0.297
Benzo(a)pyrene	ug/l	0.1	ND (0.032)	0.0836	0.0481	ND (0.032)	ND (0.039)
Benzo(b)fluoranthene	ug/l	0.2	0.0569	0.169	0.0802	ND (0.041)	0.0716
Benzo(k)fluoranthene	ug/l	0.5	ND (0.048)	0.0674 J	ND (0.048)	ND (0.048)	ND (0.059)
Dibenzo(a,h)anthracene	ug/l	0.3	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.059)
Hexachlorobenzene	ug/l	0.02	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.013)
Hexachlorobutadiene	ug/l	1	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.059)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	ND (0.048)	0.0849 J	0.0500 J	ND (0.048)	ND (0.059)
1,4-Dioxane	ug/l	0.4	0.0511 J	ND (0.048)	0.0481 J	ND (0.048)	0.0616 J

MS Semi-volatile TIC ug/l Total TIC, Semi-Volatile 71.8 J 763.7 J

Metals Analysis							
Aluminum	ug/l	200	34600	<200	<200	<200	4750
Antimony	ug/l	6	<30	<6.0	<6.0	<6.0	<6.0
Arsenic	ug/l	3	35.5 °	<1.0	4.3	7.2	7.4
Barium	ug/l	6000	<1000	<200	<200	<200	<200
Beryllium	ug/l	1	<5.0	<1.0	<1.0	<1.0	<1.0
Cadmium	ug/l	4	<15	<3.0	<3.0	<3.0	<3.0
Calcium	ug/l		<25000	7440	26000	9790	175000
Chromium	ug/l	70	74	<10	<10	<10	19.9
Cobalt	ug/l	100	<250	<50	<50	<50	<50
Copper	ug/l	1300	88	10.2	<10	<10	28.9
Iron	ug/l	300	84500	314	7460	12700	37300
Lead	ug/l	5	119	<3.0	<3.0	<3.0	7.2
Magnesium	ug/l		<25000	<5000	8270	11300	142000
Manganese	ug/l	50	272	<15	194	157	639
Mercury	ug/l	2	0.81	<0.20	<0.20	<0.20	0.44
Nickel	ug/l	100	<50	<10	<10	<10	15.5
Potassium	ug/l		<50000	<10000	<10000	10400	37800
Selenium	ug/l	40	<50	<10	<10	<10	<10
Silver	ug/l	40	<50	<10	<10	<10	<10
Sodium	ug/l	50000	<50000	<10000	182000	64100	1140000
Thallium	ug/l	2	<5.0 °	<1.0	<1.0	<1.0	<1.0
Vanadium	ug/l		<250	<50	<50	<50	<50
Zinc	ug/l	2000	214	96.5	<20	<20	59.8

General Chemistry							
A 174		2000	-000	-000	4000	0.40	4500
Nitrogen, Ammonia	ug/l	3000	<200	<200	1600	940	1500

- a Associated CCV outside of control limits low.
- b Associated CCV outside of control limits high, sample was ND.
- c This compound in BS is outside in house QC limits bias high.
- d Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- e Associated CCV and BS outside of control limits high, sample was ND. f This compound in BS is outside in house QC limits bias high.
- Associated CCV outside of control limits high, sample was ND.
- g Associated CCV,BS,BSD outside of control limits high, sample was ND. h Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Sample was ND.
- i Estimated value, due to corresponding failure in the batch associated CCV. j Associated CCV outside of control limits high.
- Estimated value, due to corresponding failure in the batch associated CCV.
- k Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding
- failure in the batch associated CCV.
- I Result confirmed by reextraction outside of the holding time.
- m Sample reextracted outside of the holding time for confirmation.
- n There is no sample left to reextract for confirmation.
- o Elevated sample detection limit due to difficult sample matrix.
- p Elevated detection limit due to dilution required for high interfering element.
- q Elevated detection limit due to dilution required for matrix interference.

QC Laboratory Groundwater Analytical Results

Client Sample ID:			MW-1	MW-2	MW-3	MW-4	PER-6R
Lab Sample ID:		NJ Groundwater Criteria	JC98148-13	JC98148-14	JC98148-15	JC98148-16	JC98148-17
Date Sampled:		Oriteria	11/6/2019	11/6/2019	11/6/2019	11/6/2019	11/6/2019
Matrix:			Ground Water				
MS Volatiles (SW846 8260C)							
Acetone	ug/l	6000	ND (6.0)	ND (6.0)	ND (6.0)	15.1	ND (6.0)
Benzene	ug/l	1	ND (0.43)	ND (0.43)	ND (0.43)	1.8	ND (0.43)
Bromochloromethane	ug/l	-	ND (0.48)				
Bromodichloromethane	ug/l	1	ND (0.58)	ND (0.58)	ND (0.58)	ND (0.58) b	ND (0.58)
Bromoform	ug/l	4	ND (0.63)				
Bromomethane	ug/l	10	ND (1.6)				
2-Butanone (MEK)	ug/l	300	ND (6.9)				
Carbon disulfide	ug/l	700	ND (0.95)				
Carbon tetrachloride	ug/l	1	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55) ^b	ND (0.55)
Chlorobenzene	ug/l	50	ND (0.56)				
Chloroethane	ug/l	-	ND (0.73)				
Chloroform	ug/l	70	ND (0.50)				
Chloromethane	ug/l	-	ND (0.76)				
Cyclohexane	ug/l	-	ND (0.78)				
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)				
Dibromochloromethane	ug/l	1	ND (0.56)				
1,2-Dibromoethane	ug/l	0.03	ND (0.48)				
1,2-Dichlorobenzene	ug/l	600	ND (0.53)				
1,3-Dichlorobenzene	ug/l	600	ND (0.54)				
1,4-Dichlorobenzene Dichlorodifluoromethane	ug/l	75 1000	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51) ND (1.4)
Jichlorodifluoromethane 1,1-Dichloroethane	ug/l	50	ND (1.4)	ND (1.4)	ND (1.4)	ND (1.4)	` '
1,1-Dichloroethane	ug/l ug/l	2	ND (0.57) ND (0.60)				
1,1-Dichloroethene	ug/l	1	ND (0.59)				
cis-1,2-Dichloroethene	ug/l	70	ND (0.51)	ND (0.51)	ND (0.59)	ND (0.59)	ND (0.51)
rans-1,2-Dichloroethene	ug/l	100	ND (0.51)	ND (0.51)	ND (0.54)	ND (0.51)	ND (0.54)
1,2-Dichloropropane	ug/l	1	ND (0.51)				
cis-1,3-Dichloropropene	ug/l	-	ND (0.47)				
rans-1,3-Dichloropropene	ug/l	-	ND (0.43)				
Ethylbenzene	ug/l	700	ND (0.60)	ND (0.60)	ND (0.60)	4.8	ND (0.60)
Freon 113	ug/l	20000	ND (1.9)				
2-Hexanone	ug/l	40	ND (2.0)				
sopropylbenzene	ug/l	700	ND (0.65)	ND (0.65)	ND (0.65)	1.6	ND (0.65)
Methyl Acetate	ug/l	7000	ND (0.80) ^a	ND (0.80) ^a	ND (0.80) ^a	ND (0.80)	ND (0.80) ^a
Methylcyclohexane	ug/l	-	ND (0.60)	ND (0.60)	ND (0.60)	6	ND (0.60)
Methyl Tert Butyl Ether	ug/l	70	ND (0.51)	0.55 J	ND (0.51)	1.8	ND (0.51)
1-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)				
Methylene chloride	ug/l	3	ND (1.0)				
Styrene	ug/l	100	ND (0.70)				
Tert Butyl Alcohol	ug/l	100	ND (5.8)	ND (5.8)	ND (5.8)	24.1	ND (5.8)
1,1,2,2-Tetrachloroethane	ug/l	1	ND (0.65)				
Tetrachloroethene	ug/l	1	ND (0.90)				
Toluene	ug/l	600	ND (0.53)	ND (0.53)	ND (0.53)	2.3	ND (0.53)
1,2,3-Trichlorobenzene	ug/l	-	ND (0.50)				
1,2,4-Trichlorobenzene	ug/l	9	ND (0.50)				
1,1,1-Trichloroethane	ug/l	30	ND (0.54)				
1,1,2-Trichloroethane	ug/l	3	ND (0.53)				
Frichloroethene	ug/l	1	ND (0.53)				
Frichlorofluoromethane	ug/l	2000	ND (0.84)	ND (0.84) ND (0.79)	ND (0.84)	ND (0.84)	ND (0.84)
/inyl chloride	ug/l	1	ND (0.79)	, ,	ND (0.79)	ND (0.79)	ND (0.79)
n,p-Xylene	ug/l	-	ND (0.78)	ND (0.78)	ND (0.78)	7.7	ND (0.78)
o-Xylene	ug/l	1000	ND (0.59)	ND (0.59)	ND (0.59)	2.7	ND (0.59)
(ylene (total)	ug/l	1000	ND (0.59)	ND (0.59)	ND (0.59)	10.4	ND (0.59)
MC Valatile TIC							
MS Volatile TIC							
Total TIC, Volatile	ug/l		5.4 J	0	6.9 J	227.7 J	0
otal 110, voiatile	ug/I	•	J. + J		0.93	ZZ1.1 J	l
MS Semi-volatiles (SW846 8270D)							
no demi-volatiles (SVV040 02/UD)							
cenaphthene	ug/l	400	ND (0.18)				
	ug/i	100	(0.10)	(0.10)	(0.10)	(0.10)	.15 (0.10)

Groundwater Analytical Results

Client Sample ID:			MW-1	MW-2	MW-3	MW-4	PER-6R
Lab Sample ID:		NJ Groundwater	JC98148-13	JC98148-14	JC98148-15	JC98148-16	JC98148-17
Date Sampled:		Criteria	11/6/2019	11/6/2019	11/6/2019	11/6/2019	11/6/2019
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Acenaphthylene	ug/l	-	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
Acetophenone	ug/l	700	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Anthracene	ug/l	2000	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Atrazine	ug/l	3	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)
Benzaldehyde	ug/l	-	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)
Benzo(g,h,i)perylene	ug/l	-	ND (0.33)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
4-Bromophenyl phenyl ether	ug/l	-	ND (0.39)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Butyl benzyl phthalate	ug/l	100	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)
1,1'-Biphenyl	ug/l	400	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
2-Chloronaphthalene	ug/l	600	ND (0.23)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
4-Chloroaniline	ug/l	30	ND (0.33)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)
Carbazole	ug/l	-	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Caprolactam	ug/l	4000	ND (0.62) ^b	ND (0.62) ^b	ND (0.62) ^b	ND (0.62) ^b	ND (0.62) ^b
Chrysene	ug/l	5	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
bis(2-Chloroethoxy)methane	ug/l	-	ND (0.27)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)
bis(2-Chloroethyl)ether	ug/l	7	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
2,2'-Oxybis(1-chloropropane)	ug/l	300	ND (0.39)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
4-Chlorophenyl phenyl ether	ug/l	-	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)
2,4-Dinitrotoluene	ug/l	-	ND (0.53) ^h	ND (0.53) h	ND (0.53) h	ND (0.53) h	ND (0.53) h
2,6-Dinitrotoluene	ug/l	-	ND (0.46)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)
3,3'-Dichlorobenzidine	ug/l	30	ND (0.49)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
1,4-Dioxane	ug/l	0.4	-		-		
Dibenzofuran	ug/l		ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Di-n-butyl phthalate	ug/l	700	ND (0.48)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)
Di-n-octyl phthalate	ug/l	100	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Diethyl phthalate	ug/l	6000	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Dimethyl phthalate	ug/l		ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
bis(2-Ethylhexyl)phthalate	ug/l	3	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)
Fluoranthene	ug/l	300	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
Fluorene	ug/l	300	ND (0.16)	ND (0.16)	ND (0.16)	0.26 J	ND (0.16)
Hexachlorocyclopentadiene	ug/l	40	ND (2.7)	ND (2.6)	ND (2.6)	ND (2.6)	ND (2.6)
Hexachloroethane	ug/l	7	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)
Isophorone	ug/l	40	ND (0.27)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)
2-Methylnaphthalene	ug/l	30	ND (0.20)	ND (0.20)	ND (0.20)	4	ND (0.20)
2-Nitroaniline	ug/l	-	ND (0.27)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)
3-Nitroaniline	ug/l	-	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)
4-Nitroaniline	ug/l		ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Naphthalene	ug/l	300	ND (0.22)	ND (0.22)	ND (0.22)	0.85 J	ND (0.22)
Nitrobenzene	ug/l	6	ND (0.62)	ND (0.61)	ND (0.61)	ND (0.61)	ND (0.61)
N-Nitroso-di-n-propylamine	ug/l	10	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.46)	ND (0.46)
N-Nitrosodiphenylamine	ug/l	10	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Phenanthrene	ug/l		ND (0.17)	ND (0.17)	ND (0.17)	0.40 J	ND (0.17)
Pyrene	ug/l	200	ND (0.21) h	ND (0.21) h	ND (0.21) h	ND (0.21) h	ND (0.21) h
1,2,4,5-Tetrachlorobenzene	ug/l	-	ND (0.36)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)
MS Semi-volatiles (SW846 8270D	BY SIM)						
Benzo(a)anthracene	ug/l	0.1	ND (0.022)	ND (0.022)	ND (0.022)	ND (0.022)	0.271
Benzo(a)pyrene	ug/l	0.1	ND (0.033)	ND (0.032)	ND (0.032)	ND (0.032)	0.142
Benzo(b)fluoranthene	ug/l	0.2	ND (0.043)	ND (0.041)	ND (0.041)	ND (0.041)	0.166
Benzo(k)fluoranthene	ug/l	0.5	ND (0.049)	ND (0.048)	ND (0.048)	ND (0.048)	0.0690 J
Dibenzo(a,h)anthracene	ug/l	0.3	ND (0.049)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
Hexachlorobenzene	ug/l	0.02	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.011)	ND (0.011)
Hexachlorobutadiene	ug/l	1	ND (0.049) ^b	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048) ^b
Indeno(1,2,3-cd)pyrene	ug/l	0.2	ND (0.049)	ND (0.048)	ND (0.048)	ND (0.048)	0.0937 J
1,4-Dioxane	ug/l	0.4	ND (0.049) h	ND (0.048)	ND (0.048)	0.0885 J	ND (0.048) h
MS Semi-volatile TIC							
Total TIC, Semi-Volatile	ug/l	-	0	0	0	75.2 J	0
Metals Analysis							
Aluminum	ug/l	200	2090	256	<200	3840	2860

Groundwater Analytical Results

Client Sample ID:			MW-1	MW-2	MW-3	MW-4	PER-6R
Lab Sample ID:		NJ Groundwater	JC98148-13	JC98148-14	JC98148-15	JC98148-16	JC98148-17
Date Sampled:		Criteria	11/6/2019	11/6/2019	11/6/2019	11/6/2019	11/6/2019
Matrix:			Ground Water				
Antimony	ug/l	6	<6.0	<6.0	<6.0	<6.0	<6.0
Arsenic	ug/l	3	2.2	13.5	<1.0	4.6	4.1
Barium	ug/l	6000	<200	<200	<200	<200	<200
Beryllium	ug/l	1	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	ug/l	4	<3.0	<3.0	<3.0	<3.0	<3.0
Calcium	ug/l	-	96400	20400	17800	99300	55300
Chromium	ug/l	70	17.1	<10	<10	<10	<10
Cobalt	ug/l	100	<50	<50	<50	<50	<50
Copper	ug/l	1300	34.1	22.9	<10	20.7	23.9
Iron	ug/l	300	592	6520	324	<100	4710
Lead	ug/l	5	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium	ug/l	-	<5000	<5000	<5000	<5000	7380
Manganese	ug/l	50	<15	343	834	<15	<15
Mercury	ug/l	2	<0.20	<0.20	<0.20	0.27	<0.20
Nickel	ug/l	100	<10	<10	<10	<10	<10
Potassium	ug/l	-	23100	<10000	<10000	34900	12100
Selenium	ug/l	40	<10	<10	<10	<10	<10
Silver	ug/l	40	<10	<10	<10	<10	<10
Sodium	ug/l	50000	22300	88400	25000	58600	12600
Thallium	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium	ug/l	-	<50	<50	<50	<50	<50
Zinc	ug/l	2000	<20	36.8	53.9	<20	27.5
General Chemistry							
Nitrogen, Ammonia	ug/l	3000	<200	<200	410	8300	<200

Footnotes:

- a Associated CCV outside of control limits low.
- b Associated CCV outside of control limits high, sample was ND.
- c This compound in BS is outside in house QC limits bias high.
- d Associated CCV outside of control limits high, sample was ND.
- This compound in BS is outside in house QC limits bias high.
- e Associated CCV and BS outside of control limits high, sample was ND.
- f This compound in BS is outside in house QC limits bias high.
- Associated CCV outside of control limits high, sample was ND.
- g Associated CCV,BS,BSD outside of control limits high, sample was ND.
- h Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Sample was ND.
- i Estimated value, due to corresponding failure in the batch associated CCV.
- j Associated CCV outside of control limits high.
- Estimated value, due to corresponding failure in the batch associated CCV.
- $\ k\ Associated\ CCV\ outside\ of\ control\ limits\ low.\ Low-level\ verification\ was\ analyzed\ to$
- demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding failure in the batch associated CCV.
- I Result confirmed by reextraction outside of the holding time.
- $\ensuremath{\mathsf{m}}$ Sample reextracted outside of the holding time for confirmation.
- n There is no sample left to reextract for confirmation.
- o Elevated sample detection limit due to difficult sample matrix.
- $\ensuremath{\mathsf{p}}$ Elevated detection limit due to dilution required for high interfering element.
- $\ensuremath{\mathsf{q}}$ Elevated detection limit due to dilution required for matrix interference.

TRMU - Groundwater Analytical Results

Client Sample ID:			SM-1	TF-1	TF-2	TF-3
Lab Sample ID:		NJ Groundwater Criteria	JC98258-8	JC98258-3	JC98258-4	JC98258-5
Date Sampled:		Criteria	11/8/2019	11/7/2019	11/7/2019	11/7/2019
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water
MO V-1-4:1 (OMO4C 00000)						
MS Volatiles (SW846 8260C)						
Acetone	ug/l	6000	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)
Benzene	ug/l	1	ND (0.43)	0.69	1.3	2.8
Bromochloromethane	ug/l	-	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)
Bromodichloromethane	ug/l	1	ND (0.58) b	ND (0.58)	ND (0.58)	ND (0.58) b
Bromoform	ug/l	4	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)
Bromomethane	ug/l	10	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)
2-Butanone (MEK)	ug/l	300	ND (6.9)	ND (6.9)	12.6	ND (6.9)
Carbon disulfide	ug/l	700	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)
Carbon tetrachloride	ug/l	1	ND (0.55) ^b	ND (0.55) b	ND (0.55) ^b	ND (0.55) ^b
Chlorobenzene	ug/l	50	0.77 J	0.88 J	2.5	ND (0.56)
Chloroethane	ug/l	-	ND (0.73)	ND (0.73)	ND (0.73)	ND (0.73)
Chloroform	ug/l	70	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Chloromethane	ug/l	-	ND (0.76)	ND (0.76)	ND (0.76)	ND (0.76)
Cyclohexane	ug/l	-	ND (0.78)	3.2 J	1.1 J	ND (0.78)
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)
Dibromochloromethane	ug/l	0.03	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
1,2-Dibromoethane 1,2-Dichlorobenzene	ug/l	600	ND (0.48)	ND (0.48) ND (0.53)	ND (0.48)	ND (0.48)
1,3-Dichlorobenzene	ug/l ug/l	600	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)	ND (0.53) ND (0.54)
1,4-Dichlorobenzene	ug/l	75	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.54)
Dichlorodifluoromethane	ug/l	1000	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,1-Dichloroethane	ug/l	50	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)
1,2-Dichloroethane	ug/l	2	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
1,1-Dichloroethene	ug/l	1	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
cis-1,2-Dichloroethene	ug/l	70	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
trans-1,2-Dichloroethene	ug/l	100	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
1,2-Dichloropropane	ug/l	1	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)
cis-1,3-Dichloropropene	ug/l	-	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)
trans-1,3-Dichloropropene	ug/l	-	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)
Ethylbenzene	ug/l	700	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
Freon 113	ug/l	20000	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)
2-Hexanone	ug/l	40	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)
Isopropylbenzene	ug/l	700	ND (0.65)	11.7	5.8	6.3
Methyl Acetate	ug/l	7000	ND (0.80)	ND (0.80)	ND (0.80)	ND (0.80)
Methylcyclohexane	ug/l	-	ND (0.60)	1.8 J	0.84 J	ND (0.60)
Methyl Tert Butyl Ether	ug/l	70	ND (0.51)	1.6	1.5	ND (0.51)
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)	ND (1.9)	ND (1.9)	ND (1.9)
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Styrene	ug/l	100	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)
Tert Butyl Alcohol	ug/l	100	7.9 J	61	54.8	8.9 J
1,1,2,2-Tetrachloroethane	ug/l	1	ND (0.65)	ND (0.65)	ND (0.65)	ND (0.65)
Tetrachloroethene	ug/l	1	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)
Toluene 1,2,3-Trichlorobenzene	ug/l ug/l	600	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)
1,2,3-Trichlorobenzene	ug/i ug/l	9	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
1,2,4-1 richlorobenzene 1,1,1-Trichloroethane	ug/i ug/l	30	ND (0.50) ND (0.54)	ND (0.50) ND (0.54)	ND (0.50) ND (0.54)	ND (0.50) ND (0.54)
1,1,2-Trichloroethane	ug/l	3	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)
Trichloroethene	ug/l	1	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
Trichlorofluoromethane	ug/l	2000	ND (0.84)	ND (0.84)	ND (0.84)	ND (0.84)
Vinyl chloride	ug/l	1	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)
m,p-Xylene	ug/l	-	ND (0.78)	0.95 J	ND (0.78)	ND (0.78)
o-Xylene	ug/l	-	ND (0.59)	0.72 J	0.70 J	ND (0.59)
Xylene (total)	ug/l	1000	ND (0.59)	1.7	0.70 J	ND (0.59)
					•	•
MS Volatile TIC						
Total TIC, Volatile	ug/l	-	0	345 J	348 J	13.4 J

TRMU - Groundwater Analytical Results

Client Sample ID:			SM-1	TF-1	TF-2	TF-3
Lab Sample ID:		NJ Groundwater	JC98258-8	JC98258-3	JC98258-4	JC98258-5
Date Sampled:		Criteria	11/8/2019	11/7/2019	11/7/2019	11/7/2019
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water
Acenaphthene	ug/l	400	0.37 J	ND (0.18)	ND (0.92)	0.72 J
Acenaphthylene	ug/l	-	ND (0.13)	ND (0.13)	ND (0.65)	ND (0.13)
Acetophenone	ug/l	700	ND (0.20)	ND (0.20)	ND (1.0)	ND (0.20)
Anthracene	ug/l	2000	0.26 J	ND (0.20)	ND (1.0)	ND (0.20)
Atrazine	ug/l	3	ND (0.43)	ND (0.43)	ND (2.1)	ND (0.43)
Benzaldehyde	ug/l	-	ND (0.28)	ND (0.28)	ND (1.4)	ND (0.28)
Benzo(g,h,i)perylene	ug/l	-	ND (0.32)	ND (0.32)	ND (1.6)	ND (0.32)
4-Bromophenyl phenyl ether	ug/l	-	ND (0.38)	ND (0.38)	ND (1.9)	ND (0.38)
Butyl benzyl phthalate	ug/l	100	ND (0.44)	ND (0.44)	ND (2.2) b	ND (0.44)
1,1'-Biphenyl	ug/l	400	ND (0.20)	ND (0.20)	ND (1.0)	ND (0.20)
2-Chloronaphthalene	ug/l	600	ND (0.22)	ND (0.22)	ND (1.1)	ND (0.22)
4-Chloroaniline	ug/l	30	ND (0.32)	ND (0.32)	ND (1.6)	ND (0.32)
Carbazole	ug/l	-	ND (0.22)	ND (0.22)	ND (1.1)	ND (0.22)
Caprolactam	ug/l	4000	ND (0.62)	ND (0.62)	ND (3.1)	ND (0.62)
Chrysene	ug/l	5	ND (0.02)	ND (0.02)	ND (0.85)	ND (0.02)
bis(2-Chloroethoxy)methane	ug/l	-	ND (0.17)	ND (0.17)	ND (0.83)	ND (0.17)
bis(2-Chloroethyl)ether	ug/l	7	ND (0.24)	ND (0.24)	ND (1.3)	ND (0.26)
2,2'-Oxybis(1-chloropropane)	ug/l	300	ND (0.24)	ND (0.24)	ND (1.2)	ND (0.24)
, , , , , ,			` '	, ,	. ,	` ′
4-Chlorophenyl phenyl ether	ug/l	-	ND (0.35)	ND (0.35)	ND (1.8)	ND (0.35)
2,4-Dinitrotoluene	ug/l	-	ND (0.53)	ND (0.53)	ND (2.7)	ND (0.53)
2,6-Dinitrotoluene 3.3'-Dichlorobenzidine	ug/l	30	ND (0.45)	ND (0.45)	ND (2.3)	ND (0.45)
- / -	ug/l		ND (0.48)	ND (0.48)	ND (2.4)	ND (0.48)
1,4-Dioxane	ug/l	0.4	- ND (0.04)	- ND (0.04)	-	- ND (0.04)
Dibenzofuran	ug/l	-	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)
Di-n-butyl phthalate	ug/l	700	ND (0.47)	ND (0.47)	ND (2.4)	ND (0.47)
Di-n-octyl phthalate	ug/l	100	ND (0.22) °	ND (0.22)	ND (1.1) ^b	ND (0.22)
Diethyl phthalate	ug/l	6000	ND (0.25)	ND (0.25)	ND (1.3)	ND (0.25)
Dimethyl phthalate	ug/l	-	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.21)
bis(2-Ethylhexyl)phthalate	ug/l	3	ND (1.6)	ND (1.6)	ND (7.9) ^b	ND (1.6)
Fluoranthene	ug/l	300	ND (0.16)	ND (0.16)	ND (0.82)	ND (0.16)
Fluorene	ug/l	300	0.17 J	ND (0.16)	ND (0.82)	0.41 J
Hexachlorocyclopentadiene	ug/l	40	ND (2.6)	ND (2.6)	ND (13)	ND (2.6)
Hexachloroethane	ug/l	7	ND (0.37)	ND (0.37)	ND (1.9)	ND (0.37)
Isophorone	ug/l	40	ND (0.26)	ND (0.26)	ND (1.3)	ND (0.26)
2-Methylnaphthalene	ug/l	30	ND (0.20)	ND (0.20)	ND (1.0)	ND (0.20)
2-Nitroaniline	ug/l	-	ND (0.26)	ND (0.26)	ND (1.3)	ND (0.26)
3-Nitroaniline	ug/l	-	ND (0.37) b	ND (0.37) b	ND (1.9)	ND (0.37) b
4-Nitroaniline	ug/l	-	ND (0.42)	ND (0.42)	ND (2.1) ^b	ND (0.42)
Naphthalene	ug/l	300	ND (0.22)	0.30 J	ND (1.1)	ND (0.22)
Nitrobenzene	ug/l	6	ND (0.61)	ND (0.61)	ND (3.1)	ND (0.61)
N-Nitroso-di-n-propylamine	ug/l	10	ND (0.46)	ND (0.46)	ND (2.3)	ND (0.46)
N-Nitrosodiphenylamine	ug/l	10	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)
Phenanthrene	ug/l	•	ND (0.17)	ND (0.17)	ND (0.84)	ND (0.17)
Pyrene	ug/l	200	ND (0.21)	ND (0.21)	ND (1.1) b	ND (0.21)
1,2,4,5-Tetrachlorobenzene	ug/l	-	ND (0.35)	ND (0.35)	ND (1.8)	ND (0.35)
			I.	I.		
MS Semi-volatiles (SW846 8270	D BY SI	M)				
Benzo(a)anthracene	ug/l	0.1	0.0327 J	0.0320 J	ND (0.022)	ND (0.022)
Benzo(a)pyrene	ug/l	0.1	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)
Benzo(b)fluoranthene	ug/l	0.2	ND (0.041)	ND (0.041)	ND (0.042)	ND (0.041)
Benzo(k)fluoranthene	ug/l	0.5	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
Dibenzo(a,h)anthracene	ug/l	0.3	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
Hexachlorobenzene	ug/l	0.02	ND (0.011)	0.018	ND (0.011)	0.0172
Hexachlorobutadiene	ug/l	1	ND (0.048) ^b	ND (0.048)	ND (0.048)	ND (0.048)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
1,4-Dioxane	ug/l	0.4	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
1, T DIOXAIIC	ug/I	0.4	140 (0.040)	140 (0.040)	140 (0.040)	(0.040)
MS Somi volatila TIC						
MS Semi-volatile TIC Total TIC, Semi-Volatile	ua/I		4 J	851 J	2382 J	57.1 J
rotal FIG, Semi-Volatile	ug/l	-	4 J	0011	2002 J	37.1J

TRMU - Groundwater Analytical Results

Client Sample ID:			SM-1	TF-1	TF-2	TF-3
Lab Sample ID:		NJ Groundwater	JC98258-8	JC98258-3	JC98258-4	JC98258-5
Date Sampled:		Criteria	11/8/2019	11/7/2019	11/7/2019	11/7/2019
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water
					•	
Metals Analysis						
Aluminum	ug/l	200	1040	<200	<200	684
Antimony	ug/l	6	<6.0	<6.0	<6.0	<6.0
Arsenic	ug/l	3	13.1	18.5	9.5	13.5
Barium	ug/l	6000	<200	<200	<200	<200
Beryllium	ug/l	1	<1.0	<1.0	<1.0	<1.0
Cadmium	ug/l	4	<3.0	<3.0	<3.0	<3.0
Calcium	ug/l	-	12700	63700	104000	20800
Chromium	ug/l	70	<10	<10	<10	10.2
Cobalt	ug/l	100	<50	<50	<50	<50
Copper	ug/l	1300	38.7	<10	<10	12.5
Iron	ug/l	300	6990	29700	29000	16800
Lead	ug/l	5	3.3	<3.0	3.1	7.6
Magnesium	ug/l	-	9930	35300	14700	6260
Manganese	ug/l	50	489	361	933	353
Mercury	ug/l	2	<0.20	<0.20	<0.20	<0.20
Nickel	ug/l	100	<10	<10	<10	23.4
Potassium	ug/l	-	<10000	19500	13200	<10000
Selenium	ug/l	40	<10	<10	<10	<10
Silver	ug/l	40	<10	<10	<10	<10
Sodium	ug/l	50000	76400	259000	142000	29500
Thallium	ug/l	2	<1.0	<1.0	<1.0	<1.0
Vanadium	ug/l	-	<50	<50	<50	<50
Zinc	ug/l	2000	31.9	<20	28	68.8
General Chemistry						
Nitrogen, Ammonia	ug/l	3000	590	4100	2100	220

Footnotes:

- a Associated CCV outside of control limits low.
- b Associated CCV outside of control limits high, sample was ND.
- c This compound in BS is outside in house QC limits bias high.
- d Associated CCV outside of control limits high, sample was ND.
- This compound in BS is outside in house QC limits bias high.
- e Associated CCV and BS outside of control limits high, sample was ND.
- f This compound in BS is outside in house QC limits bias high.
- Associated CCV outside of control limits high, sample was ND.
- g Associated CCV,BS,BSD outside of control limits high, sample was ND.
- h Associated CCV outside of control limits low. Low-level verification was analyzed to
- $demonstrate\ system\ suitability\ to\ detect\ affected\ analytes.\ Sample\ was\ ND.$
- i Estimated value, due to corresponding failure in the batch associated CCV.
- j Associated CCV outside of control limits high.
- Estimated value, due to corresponding failure in the batch associated CCV.
- k Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding failure in the batch associated CCV.
- I Result confirmed by reextraction outside of the holding time.
- m Sample reextracted outside of the holding time for confirmation.
- n There is no sample left to reextract for confirmation.
- o Elevated sample detection limit due to difficult sample matrix.
- p Elevated detection limit due to dilution required for high interfering element.
- q Elevated detection limit due to dilution required for matrix interference.

Client Sample ID: Lab Sample ID: Date Sampled:		NJ Groundwater Criteria	PL-1RR JC98257-11 11/7/2019	PL-2 JC98257-10 11/7/2019	PL-3R JC98257-7 11/7/2019	PL-4RR JC98257-9 11/7/2019	PL-7 JC98258-1 11/7/2019	PL-8 JC98258-2 11/7/2019	PL-9R JC98257-8 11/7/2019	TM-5 JC98455-5 11/12/2019	TM-6R JC98455-4 11/12/2019	TM-7 JC98566-1 11/13/2019
Matrix:			Ground Water	Ground Water								
MS Volatiles (SW846 8260C)												<u> </u>
Acetone	ug/l	6000	ND (6.0)	ND (6.0)								
Benzene	ug/l	1	13.1	5.5	0.49 J	ND (0.43)	151	0.62				
Bromochloromethane	ug/l	-	ND (0.48)	ND (0.48)								
Bromodichloromethane Bromoform	ug/l	1 4	ND (0.58) ND (0.63)	ND (0.58) ND (0.63)								
Bromomethane	ug/l ug/l	10	ND (0.63)	ND (0.63)	ND (0.03)	ND (1.6)	ND (1.6)	ND (0.03)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.03)
2-Butanone (MEK)	ug/l	300	ND (6.9)	ND (6.9)								
Carbon disulfide	ug/l	700	ND (0.95)	ND (0.95)								
Carbon tetrachloride	ug/l	1	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55) ^b	ND (0.55) ^b	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)
Chlorobenzene	ug/l	50 -	102 ND (0.73)	3.9	ND (0.56)	ND (0.56) ND (0.73)	ND (0.56)	1.5				
Chloroethane Chloroform	ug/l ug/l	70	ND (0.73) ND (0.50)	ND (0.73) ND (0.50)								
Chloromethane	ug/l	-	ND (0.76)	ND (0.76)								
Cyclohexane	ug/l	-	1.1 J	8	10.3	ND (0.78)	90.5	37.6				
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)								
Dibromochloromethane	ug/l	1	ND (0.56)	ND (0.56)								
1,2-Dibromoethane	ug/l	0.03	ND (0.48)	ND (0.48)								
1,2-Dichlorobenzene	ug/l	600	ND (0.53)	ND (0.53)								
1,3-Dichlorobenzene	ug/l	600	1.7	ND (0.54)	ND (0.54)							
1,4-Dichlorobenzene	ug/l	75	4.3	0.76 J	ND (0.51)	ND (0.51)						
Dichlorodifluoromethane	ug/l	1000	ND (1.4) b	ND (1.4) ^d	ND (1.4) ^d	ND (1.4) ^d	ND (1.4)	ND (1.4)	ND (1.4) ^d	ND (1.4) b	ND (1.4) b	ND (1.4)
1,1-Dichloroethane 1,2-Dichloroethane	ug/l	50 2	ND (0.57)	ND (0.57) ND (0.60)	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)				
1,2-Dichloroethane 1,1-Dichloroethene	ug/l ug/l	1	ND (0.60) ND (0.59)	ND (0.60) ND (0.59)								
cis-1.2-Dichloroethene	ug/l	70	ND (0.59)	ND (0.59)								
trans-1,2-Dichloroethene	ug/l	100	ND (0.54)	ND (0.54)								
1,2-Dichloropropane	ug/l	1	ND (0.51)	ND (0.51)								
cis-1,3-Dichloropropene	ug/l	-	ND (0.47)	ND (0.47)								
trans-1,3-Dichloropropene	ug/l	-	ND (0.43)	ND (0.43)								
Ethylbenzene	ug/l	700	ND (0.60)	2.7	ND (0.60)							
Freon 113	ug/l	20000	ND (1.9)	ND (1.9) b	ND (1.9) b	ND (1.9) b	ND (1.9)	ND (1.9)	ND (1.9) b	ND (1.9)	ND (1.9)	ND (1.9)
2-Hexanone	ug/l	40	ND (2.0)	ND (2.0)								
Isopropylbenzene Methyl Acetate	ug/l ug/l	700 7000	1.8 ND (0.80)	3.1 ND (0.80)	1.1 ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	16.7 ND (0.80)	45.4 ND (0.80)
Methylcyclohexane	ug/l	-	1.8 J	6.3	6.9	ND (0.60)	26.7	43.2				
Methyl Tert Butyl Ether	ug/l	70	ND (0.51)	2.7	0.97 J	ND (0.51)	31.1					
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.9)	ND (1.9)								
Methylene chloride	ug/l	3	ND (1.0)	ND (1.0)								
Styrene	ug/l	100	ND (0.70)	ND (0.70)								
Tert Butyl Alcohol	ug/l	100	51.5	7.4 J	7.7 J	ND (5.8)	170					
1,1,2,2-Tetrachloroethane	ug/l	1	ND (0.65)	ND (0.65)								
Tetrachloroethene	ug/l	1	ND (0.90)	ND (0.90)								
Toluene	ug/l	600	ND (0.53)	1.2	14.5							
1,2,3-Trichlorobenzene	ug/l	- 9	ND (0.50)	ND (0.50)								
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	ug/l ug/l	30	ND (0.50) ND (0.54)	ND (0.50) ND (0.54)								
1,1,1-Trichloroethane	ug/i ug/l	3	ND (0.54)	ND (0.54)								
Trichloroethene	ug/l	1	ND (0.53)	ND (0.53)								
Trichlorofluoromethane	ug/l	2000	ND (0.84)	ND (0.84)								
Vinyl chloride	ug/l	1	ND (0.79)	ND (0.79)								
m,p-Xylene	ug/l	-	ND (0.78)	1.5	ND (0.78)							
o-Xylene	ug/l	-	0.68 J	1.8	ND (0.59)	ND (0.59)						
Xylene (total)	ug/l	1000	0.68 J	1.8	ND (0.59)	1.5	ND (0.59)					
MS Volatile TIC												
MS volatile TIC												l
Total TIC, Volatile	ug/l	-	54.2 J	186.4 J	29.4 J	0	0	51.8 J	0	0	606 J	775 J
				J								
MS Semi-volatiles (SW846 8270D)												ı
Acenaphthene	ug/l	400	2.3	3.2	0.47 J	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.18)	ND (0.19)	1.2	1.5
Acenaphthylene	ug/l	-	ND (0.14)	ND (0.13)	ND (0.14)	ND (0.14)	ND (0.13)					
Acetophenone	ug/l	700	ND (0.21)	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.21)	ND (0.20)				
		2000	0.59 J	0.65 J	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.21)	0.27 J
Anthracene	ug/l	2000				ND (0.44)	ND (0.44)	ND (0.44)	ND (0.43)	ND (0.45)	ND (0.45)	ND (0.44) ^a
Anthracene Atrazine	ug/l ug/l	3	ND (0.45)	ND (0.44)	ND (0.44)	140 (0.44)	112 (0.11)	(,	(/		140 (0.40)	
	ug/l ug/l		ND (0.29)	ND (0.44) ND (0.29)	ND (0.28)	ND (0.29)	ND (0.29)	ND (0.28)				
Atrazine Benzaldehyde Benzo(g,h,i)perylene	ug/l ug/l ug/l	3	ND (0.29) ND (0.34)	ND (0.29) ND (0.34)	ND (0.28) ND (0.33)	ND (0.28) ND (0.33)	ND (0.28) ND (0.33)	ND (0.28) ND (0.33)	ND (0.28) ND (0.32)	ND (0.29) ND (0.34)	ND (0.29) ND (0.34)	ND (0.33)
Atrazine Benzaldehyde Benzo(g,h,i)perylene 4-Bromophenyl phenyl ether	ug/l ug/l ug/l ug/l	3 - -	ND (0.29) ND (0.34) ND (0.40)	ND (0.29) ND (0.34) ND (0.40)	ND (0.28) ND (0.33) ND (0.40)	ND (0.28) ND (0.32) ND (0.38)	ND (0.29) ND (0.34) ND (0.40)	ND (0.29) ND (0.34) ND (0.40)	ND (0.33) ND (0.40)			
Atrazine Benzaldehyde Benzo(g,h,i)perylene 4-Bromophenyl phenyl ether Butyl benzyl phthalate	ug/l ug/l ug/l ug/l ug/l	3 - - - 100	ND (0.29) ND (0.34) ND (0.40) ND (0.46)	ND (0.29) ND (0.34) ND (0.40) ND (0.45)	ND (0.28) ND (0.33) ND (0.40) ND (0.45)	ND (0.28) ND (0.32) ND (0.38) ND (0.44)	ND (0.29) ND (0.34) ND (0.40) ND (0.46)	ND (0.29) ND (0.34) ND (0.40) ND (0.46) b	ND (0.33) ND (0.40) ND (0.45)			
Atrazine Benzaldehyde Benzo(g,h,i)perylene 4-Bromophenyl phenyl ether Butyl benzyl phthalate 1,1'-Biphenyl	ug/l ug/l ug/l ug/l ug/l	3 - - - 100 400	ND (0.29) ND (0.34) ND (0.40) ND (0.46) ND (0.21)	ND (0.29) ND (0.34) ND (0.40) ND (0.45) ND (0.21)	ND (0.28) ND (0.33) ND (0.40) ND (0.45) ND (0.21)	ND (0.28) ND (0.32) ND (0.38) ND (0.44) ND (0.20)	ND (0.29) ND (0.34) ND (0.40) ND (0.46) ND (0.21)	ND (0.29) ND (0.34) ND (0.40) ND (0.46) b ND (0.21)	ND (0.33) ND (0.40) ND (0.45) ND (0.21)			
Atrazine Benzaldehyde Benzo(g,h,i)perylene 4-Bromophenyl phenyl ether Butyl benzyl phthalate	ug/l ug/l ug/l ug/l ug/l	3 - - - 100	ND (0.29) ND (0.34) ND (0.40) ND (0.46)	ND (0.29) ND (0.34) ND (0.40) ND (0.45)	ND (0.28) ND (0.33) ND (0.40) ND (0.45)	ND (0.28) ND (0.32) ND (0.38) ND (0.44)	ND (0.29) ND (0.34) ND (0.40) ND (0.46)	ND (0.29) ND (0.34) ND (0.40) ND (0.46) b	ND (0.33) ND (0.40) ND (0.45)			

SRMU - Groundwater Analytical Results

Client Sample ID:			PL-1RR	PL-2	PL-3R	PL-4RR	PL-7	PL-8	PL-9R	TM-5	TM-6R	TM-7
Lab Sample ID:			JC98257-11	JC98257-10	JC98257-7	JC98257-9	JC98258-1	JC98258-2	JC98257-8	JC98455-5	JC98455-4	JC98566-1
Date Sampled:		NJ Groundwater Criteria	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/12/2019	11/12/2019	11/13/2019
Matrix:			Ground	Ground	Ground	Ground						
Carbazole	/1	-	Water 0.70 J	Water ND (0.23)	Water ND (0.22)	Water ND (0.23)	Water	Water				
Caprolactam	ug/l ug/l	4000	0.70 J ND (0.65) ^b	ND (0.23)	ND (0.22)	ND (0.22)	ND (0.22) ND (0.64)	ND (0.22)	ND (0.22) ND (0.62) b	ND (0.23)	ND (0.23) ND (0.65)	ND (0.22) ND (0.64)
Chrysene	ug/l	5	0.30 J	0.18 J	ND (0.04)	ND (0.04)	ND (0.04)	ND (0.04)	ND (0.02)	ND (0.03)	ND (0.03)	ND (0.04)
bis(2-Chloroethoxy)methane	ug/l	-	ND (0.28)	ND (0.28)	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.17)				
bis(2-Chloroethyl)ether	_	7	ND (0.25)	ND (0.25)	ND (0.24)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.24)	ND (0.25)	ND (0.25)	ND (0.24)
	ug/l											
2,2'-Oxybis(1-chloropropane)	ug/l	300	ND (0.40) ^g ND (0.37)	ND (0.40) ^g ND (0.36)	ND (0.40) ^g ND (0.36)	ND (0.40) ^g ND (0.36)	ND (0.40) ND (0.36)	ND (0.40) ND (0.36)	ND (0.38) ^g ND (0.35)	ND (0.40) ND (0.37)	ND (0.40) ND (0.37)	ND (0.40) ND (0.36)
4-Chlorophenyl phenyl ether 2.4-Dinitrotoluene	ug/l	-					ND (0.54)					
2,4-Dinitrotoluene	ug/l ug/l		ND (0.55) ^b ND (0.48)	ND (0.55) ^b ND (0.47)	ND (0.54) D ND (0.47)	ND (0.54) D ND (0.47)	ND (0.54)	ND (0.54) ND (0.47)	ND (0.53) ^b ND (0.45)	ND (0.55) ND (0.48)	ND (0.55) ND (0.48)	ND (0.54) ND (0.47)
3,3'-Dichlorobenzidine	ug/l	30	ND (0.48)	ND (0.47)	ND (0.43)	ND (0.48)	ND (0.48)	ND (0.47)				
1.4-Dioxane		0.4	ND (0.51)	ND (0.50)	ND (0.46)	- 14D (0.51)	ND (0.51)	ND (0.50)				
Dibenzofuran	ug/l ug/l	-	0.92 J	0.98 J	0.22 J	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.21)	ND (0.22)	0.30 J	ND (0.22)
Di-n-butyl phthalate	ug/l	700	ND (0.50)	ND (0.49)	ND (0.49)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.50)	ND (0.22)
Di-n-octyl phthalate	ug/l	100	ND (0.30) b	ND (0.49)	ND (0.47)	ND (0.30)	ND (0.30)	ND (0.49)				
Diethyl phthalate	ug/l	6000	ND (0.23)	ND (0.26)	ND (0.25)	ND (0.26)	ND (0.26)	ND (0.26)				
Dimethyl phthalate		-	ND (0.20)	ND (0.23)	ND (0.20)	ND (0.20)	ND (0.20)					
	ug/l	3								ND (0.22)		ND (0.21)
bis(2-Ethylhexyl)phthalate	ug/l ug/l	300	ND (1.7) 0.56 J	ND (1.6) 0.39 J	ND (1.6) ND (0.17)	ND (1.6) ND (0.17)	ND (1.6) ND (0.17)	ND (1.6) ND (0.17)	ND (1.6) ND (0.16)	ND (1.7) ND (0.17)	ND (1.7) b ND (0.17)	ND (1.6) ND (0.17)
Fluoranthene Fluorene	_	300	0.56 J 3.1	0.39 J 4	0.71 J						0.86 J	ND (0.17)
	ug/l	40	3.1 ND (2.8)	4 ND (2.8)	0.71 J ND (2.7)	ND (0.17) ND (2.7)	ND (0.17) ND (2.7)	ND (0.17) ND (2.7)	ND (0.16) ND (2.6)	ND (0.17) ND (2.8)	0.86 J ND (2.8)	2.4 ND (2.7)
Hexachlorocyclopentadiene Hexachloroethane	ug/l	7	ND (2.8) ND (0.39)	ND (2.8) ND (0.39)	ND (2.7) ND (0.38)	ND (2.7) ND (0.38)	ND (2.7) ND (0.38)		ND (2.6) ND (0.37)	ND (2.8) ND (0.39)	ND (2.8) ND (0.39)	ND (2.7) ND (0.38)
	ug/l	40	ND (0.39) ND (0.28)	ND (0.39) ND (0.27)	ND (0.38) ND (0.27)	ND (0.38) ND (0.27)	ND (0.38) ND (0.27)	ND (0.38) ND (0.27)	ND (0.37) ND (0.26)	ND (0.39) ND (0.28)	ND (0.39) ND (0.28)	ND (0.38) ND (0.27)
Isophorone	ug/l	30				ND (0.21)			ND (0.26) ND (0.20)		ND (0.28)	20.2
2-Methylnaphthalene 2-Nitroaniline	ug/l	-	ND (0.21)	0.95 J ND (0.27)	ND (0.21) ND (0.27)	` ′	ND (0.21)	ND (0.21)	` '	ND (0.21) ND (0.28)	2 ND (0.28)	
2-Nitroaniline 3-Nitroaniline	ug/l	-	ND (0.28) ND (0.39)	ND (0.27) ND (0.38)	ND (0.27) ND (0.38)	ND (0.27) ND (0.38)	ND (0.27) ND (0.38) ^b	ND (0.27) ND (0.38) ^b	ND (0.26) ND (0.37)	ND (0.28) ND (0.39)	ND (0.28) ND (0.39)	ND (0.27) ND (0.38)
3-Nitroaniline 4-Nitroaniline	ug/l	-	ND (0.39) ND (0.44)	ND (0.38) ND (0.44)	ND (0.38)	ND (0.38) ND (0.43)	ND (0.38) ND (0.43)	ND (0.38)	ND (0.37) ND (0.42)	ND (0.39)	ND (0.39) ND (0.44)	ND (0.38) ND (0.43)
Naphthalene	ug/l ug/l	300	0.43 J	0.56 J	ND (0.43) ND (0.23)	ND (0.43) ND (0.23)	ND (0.43) ND (0.23)	ND (0.43) ND (0.23)	ND (0.42) ND (0.22)	ND (0.44) ND (0.23)	ND (0.44) ND (0.23)	1.3
Nitrobenzene	ug/i ug/l	6	0.43 J ND (0.64) ^b	0.56 J ND (0.64) ^b	ND (0.23) ND (0.63) ^b	ND (0.23) ND (0.63) ^b	ND (0.23) ND (0.63)	ND (0.23) ND (0.63)	ND (0.22) ND (0.61) ^b	ND (0.23) ND (0.64)	ND (0.23) ND (0.64)	ND (0.63)
	_	10			ND (0.63)					ND (0.64)	ND (0.64)	
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	ug/l	10	ND (0.48) ND (0.22)	ND (0.48) ND (0.22)	ND (0.47)	ND (0.47) ND (0.22)	ND (0.47) ND (0.22)	ND (0.47) ND (0.22)	ND (0.46) ND (0.21)	ND (0.46)	ND (0.46)	ND (0.47) ND (0.22)
Phenanthrene	ug/l	-	1.1	0.82 J	ND (0.22)	ND (0.22)			ND (0.21)	ND (0.22)	0.38 J	1.3
	ug/l	200	1.1	0.82 J 0.77 J	ND (0.17) ND (0.21)	ND (0.18)	ND (0.22)	ND (0.21)				
Pyrene	ug/l	-										
1,2,4,5-Tetrachlorobenzene	ug/l	•	ND (0.37)	ND (0.37)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.35)	ND (0.37)	ND (0.37)	ND (0.36)
MS Semi-volatiles (SW846 8270D BY SIM)												
Benzo(a)anthracene	ug/l	0.1	0.316 '	0.292 ^j	ND (0.022) b	ND (0.022) b	ND (0.022)	0.0264 JB ^m	ND (0.022) b	ND (0.023)	0.167	ND (0.022)
Benzo(a)pyrene	ug/l	0.1	0.135	0.0627	ND (0.033)	ND (0.033)	ND (0.033)	ND (0.033)	ND (0.032)	ND (0.033)	0.0455 J	ND (0.032)
Benzo(b)fluoranthene	ug/l	0.2	0.127	0.0592	ND (0.043)	ND (0.043)	ND (0.043)	ND (0.043)	ND (0.041)	ND (0.043)	0.0511	ND (0.041)
Benzo(k)fluoranthene	ug/l	0.5	ND (0.050)	ND (0.050)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.048)	ND (0.050)	0.0538 J	ND (0.048)
Dibenzo(a,h)anthracene	ug/l	0.3	ND (0.050)	ND (0.050)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.048)	ND (0.050)	0.0515 J	ND (0.048)
Hexachlorobenzene	ug/l	0.02	ND (0.011)	ND (0.011)	0.018	0.019	ND (0.011)	0.0239 B ^m	0.035	0.0239 B ¹	0.0149 JB ¹	0.0126 JB ^b
Hexachlorobutadiene	ug/l	1	ND (0.050)	ND (0.050)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.048)	ND (0.050)	ND (0.050)	ND (0.048)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	0.0502 J	ND (0.050)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.048)	ND (0.050)	0.0551 J	ND (0.048)
1,4-Dioxane	ug/l	0.4	ND (0.050)	ND (0.050)	0.141	ND (0.049)	ND (0.049)	ND (0.049)	0.0846 J	0.102 B	ND (0.050)	ND (0.048)
MS Semi-volatile TIC												
Total TIC, Semi-Volatile	ug/l	-	110.9 J	115.1 J	0	0	9.3 J	153.4 J	0	4.7 J	153.7 J	265.5 J
Metals Analysis		05:										ND (TTT)
Aluminum	ug/l	200	<200	<200	<200	<200	5190	<200	<200	<200	<200	ND (200)
Antimony	ug/l	6	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	ND (6.0)
Arsenic	ug/l	3	4.9	5.8	<1.0	7.3	2.4	2.6	2.1	1.2	4.1	9.5
Barium	ug/l	6000	227	<200	<200	<200	<200	<200	<200	<200	<200	ND (200)
Beryllium	ug/l	1	<1.0	<1.0	<1.0	<1.0	6.7	<1.0	<1.0	<1.0	<1.0	ND (1.0)
Calaium	ug/l	4	<3.0 113000	<3.0 12100	<3.0 38800	<3.0 17700	3.1 51500	<3.0	<3.0 74000	<3.0 41400	<3.0 42100	ND (3.0) 39200
Calcium	ug/l	- 70		12100 <10		17700 <10		31600			42100 <10	
	ug/l	70 100	<10	<10 <50	<10 <50	<10 <50	<10	<10	<10	<10 <50		ND (10)
Copper	ug/l	1300	<50 <10	<50 <10	<50 10.1		130 78.8	<50 <10	<50 <10	<50 <10	<50 <10	ND (50)
Copper	ug/l	1300 300	<10 5590	<10 40000	10.1 1510	<10 382	78.8 9690	<10 11500	<10 9350	<10 215	<10 29900	10.5 15000
Iron Lead	ug/l ug/l	300 5	>5590	<3.0	1510 <3.0	382 <3.0	<3.0	<3.0	9350 <3.0	<3.0	<3.0	ND (3.0)
		-	48400	11800	21500	<5000	11200	5270	18000	25400	<3.0 8140	13600
Magnesium Manganese	ug/l ug/l	50	48400 415	104	21500 121	<5000 46.3	1680	146	339	25400 368	1370	3920
	ug/i ug/l	2	<0.20	<0.20	<0.20	46.3 <0.20	<0.20	<0.20	<0.20	<0.20	<0.20	ND (0.20)
Mercury Nickel	ug/I ug/I	100	<0.20 <10	<0.20	<0.20	<0.20	<0.20	<0.20 <10	<0.20	<0.20	<0.20 <10	ND (0.20) ND (10)
Potassium	ug/i ug/l	-	26100	11000	10300	<10000	<10000	<10000	<10000	<10000	<10000	ND (10) ND (10000)
Selenium	ug/l	40	<10	<10	<10	<10000	<10	<10	<10000	<10000	<10000	ND (10000)
Silver	ug/i ug/l	40	<10	<10	<10	<10	<10	<10	<10	<10	<10	ND (10)
Sodium	ug/l	50000	412000	326000	155000	81000	21400	22900	76500	283000	27700	82200
Thallium	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND (1.0)
Vanadium	ug/l	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	ND (50)
L	Э.											- (30)

Hess Corporation Former Port Reading Complex 750 Cliff Road

Port Reading NJ Table 5.1

SRMU - Groundwater Analytical Results

Client Sample ID:			PL-1RR	PL-2	PL-3R	PL-4RR	PL-7	PL-8	PL-9R	TM-5	TM-6R	TM-7
Lab Sample ID:			JC98257-11	JC98257-10	JC98257-7	JC98257-9	JC98258-1	JC98258-2	JC98257-8	JC98455-5	JC98455-4	JC98566-1
Date Sampled:		NJ Groundwater Criteria	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/7/2019	11/12/2019	11/12/2019	11/13/2019
Matrix:			Ground Water									
Zinc	ug/l	2000	<20	<20	<20	<20	346	<20	<20	36.4	20.8	ND (20)
General Chemistry												
		_	_									
Nitrogen, Ammonia	ug/l	3000	4500	5200	1900	<200	210	1000	<200	<200	3900	0.71

Footnotes:

- a Associated CCV outside of control limits low.
- b Associated CCV outside of control limits high, sample was ND.
- c This compound in BS is outside in house QC limits bias high.
- d Associated CCV outside of control limits high, sample was ND.
- This compound in BS is outside in house QC limits bias high.
- e Associated CCV and BS outside of control limits high, sample was ND.
- f This compound in BS is outside in house QC limits bias high.
- Associated CCV outside of control limits high, sample was ND.
- g Associated CCV,BS,BSD outside of control limits high, sample was ND.
- h Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Sample was ND.
- i Estimated value, due to corresponding failure in the batch associated CCV.
- j Associated CCV outside of control limits high.
- Estimated value, due to corresponding failure in the batch associated CCV.
- k Associated CCV outside of control limits low. Low-level verification was analyzed to
- demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding
- failure in the batch associated CCV.
- I Result confirmed by reextraction outside of the holding time.
- m Sample reextracted outside of the holding time for confirmation.
- n There is no sample left to reextract for confirmation.
- o Elevated sample detection limit due to difficult sample matrix.
- $\ensuremath{\mathsf{p}}$ Elevated detection limit due to dilution required for high interfering element.
- q Elevated detection limit due to dilution required for matrix interference.

Client Sample ID:		SC-1	SC-1D	SC-1DD	SC-2	SC-2D	SC-2DD	SC-2DDD	SC-3	SC-3D	SC-3DD	SC-3DDD	SC-4	SC-4D	SC-4DD
Lab Sample ID:	NJ Groundwater	JC98078-14	JC98078-15	JC98078-16	JC98078-10	JC98078-13	JC98078-12	JC98078-11	JC98078-1	JC98078-2	JC98078-3	JC98078-4	JC98078-5	JC98078-6	JC98078-7
Date Sampled:	Criteria	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019
Matrix:		Ground Water													

Date Sampled: Matrix:		Criteria	11/5/2019 Ground Water	11/5/2019 Ground Water	11/5/2019 Ground Water	11/5/2019 Ground Water	11/5/2019 Ground Water	11/5/2019 Ground Water								
MS Volatiles (SW846 8260C)																
Acetone	ug/l	6000	10.1	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)	ND (6.0)							
Benzene Bromochloromethane	ug/l ug/l	1	3.6 ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	9 ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)	ND (0.43) ND (0.48)
Bromodichloromethane	ug/I	1	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.48)								
Bromoform	ug/l	4	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)								
Bromomethane 2-Butanone (MEK)	ug/l ug/l	10 300	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)	ND (1.6) ND (6.9)								
Carbon disulfide	ug/I	700	ND (0.95)	ND (0.95)	ND (0.95)	1.2 J	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)	ND (0.95)				
Carbon tetrachloride	ug/l	1	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)	ND (0.55)								
Chlorobenzene Chloroethane	ug/l ug/l	50	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)	ND (0.56) ND (0.73)								
Chloroform	ug/l	70	ND (0.50)	1.1	1.9	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)				
Chloromethane Cyclohexane	ug/l	-	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) 6.5	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) 2.2 J	ND (0.76) ° ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)	ND (0.76) ND (0.78)
1,2-Dibromo-3-chloropropane	ug/l	0.02	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)								
Dibromochloromethane 1.2-Dibromoethane	ug/l	0.03	ND (0.56) ND (0.48)	ND (0.56) ND (0.48)	ND (0.56) ND (0.48)	ND (0.56) ND (0.48)	ND (0.56) ND (0.48)	ND (0.56) ND (0.48)								
1,2-Dichlorobenzene	ug/l ug/l	600	ND (0.53)	ND (0.48)	ND (0.53)	ND (0.40)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)						
1,3-Dichlorobenzene 1.4-Dichlorobenzene	ug/l	600	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)	ND (0.54)								
1,4-Dichlorobenzene Dichlorodifluoromethane	ug/l ug/l	75 1000	ND (0.51) ND (1.4)	ND (0.51) ND (1.4) ^b	ND (0.51) ND (1.4)											
1,1-Dichloroethane	ug/l	50	ND (0.57)	ND (0.57)	ND (0.57)	ND (0.57)	2.8	ND (0.57)								
1,2-Dichloroethane 1,1-Dichloroethene	ug/l ug/l	2	ND (0.60) ND (0.59)	ND (0.60) ND (0.59)	ND (0.60) ND (0.59)	ND (0.60) ND (0.59)	ND (0.60) ND (0.59)	ND (0.60) ND (0.59)								
cis-1,2-Dichloroethene	ug/I	70	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)	ND (0.51)								
trans-1,2-Dichloroethene 1,2-Dichloropropane	ug/l ug/l	100	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)	ND (0.54) ND (0.51)								
1,2-Dichloropropane cis-1,3-Dichloropropene	ug/l	-	ND (0.51) ND (0.47)	ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)	ND (0.51) ND (0.47)
trans-1,3-Dichloropropene	ug/l	-	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)								
Ethylbenzene Freon 113	ug/l ug/l	700 20000	8.8 ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	36.2 ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)	ND (0.60) ND (1.9)
2-Hexanone	ug/l	40	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)								
Isopropylbenzene Methyl Acetate	ug/l ug/l	700 7000	2.3 ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	6.3 ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	ND (0.65) ND (0.80)	3 ND (0.80)	ND (0.65) ND (0.80) ^b	ND (0.65) ND (0.80)				
Methylcyclohexane	ug/I	-	1.8 J	ND (0.60)	ND (0.80)	9.6	ND (0.80) ND (0.60)	ND (0.60)	ND (0.60)	6	1.2 J	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.80) ND (0.60)
Methyl Tert Butyl Ether 4-Methyl-2-pentanone(MIBK)	ug/l	70	ND (0.51) ND (1.9)	0.80 J ND (1.9)	1 ND (1.9)	ND (0.51) ND (1.9)	1.8 ND (1.9)	ND (0.51) ND (1.9)	ND (0.51) ND (1.9)	ND (0.51) ND (1.9)	95.5 ND (1.9)	7.6 ND (1.9)	ND (0.51) ND (1.9)	ND (0.51)	ND (0.51) ND (1.9)	7 ND (1.9)
4-Methyl-2-pentanone(MIBK) Methylene chloride	ug/l ug/l	3	ND (1.9) ND (1.0)	ND (1.9) ND (1.0)	ND (1.9) ND (1.0)	ND (1.9) ND (1.0)	ND (1.9) ND (1.0)	ND (1.9) ND (1.0)								
Styrene	ug/l	100	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)	ND (0.70)								
Tert Butyl Alcohol 1,1,2,2-Tetrachloroethane	ug/l ug/l	100	23.8 ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	128 ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	ND (5.8) ND (0.65)	103 ND (0.65)	124 ND (0.65)
Tetrachloroethene	ug/l	1	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)	ND (0.90)								
Toluene 1,2,3-Trichlorobenzene	ug/l ug/l	600	0.81 J ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	2 ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)	ND (0.53) ND (0.50)
1,2,4-Trichlorobenzene	ug/l	9	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)								
1,1,1-Trichloroethane 1,1,2-Trichloroethane	ug/l ug/l	30	ND (0.54) ND (0.53)	ND (0.54) ND (0.53)	ND (0.54) ND (0.53)	ND (0.54) ND (0.53)	ND (0.54) ND (0.53)	ND (0.54) ND (0.53)								
Trichloroethene	ug/l	1	ND (0.53)	9.6	0.85 J	4.5	ND (0.53)	ND (0.53)	ND (0.53)							
Trichlorofluoromethane Vinyl chloride	ug/l ug/l	2000	ND (0.84) ND (0.79)	ND (0.84) ND (0.79)	ND (0.84) ND (0.79)	ND (0.84) ND (0.79)	ND (0.84) ND (0.79)	ND (0.84) ND (0.79)								
m,p-Xylene	ug/l	-	27.3	ND (0.78)	ND (0.78)	69.5	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)				
o-Xylene Xylene (total)	ug/l ug/l	1000	17.9 45.2	ND (0.59) ND (0.59)	ND (0.59) ND (0.59)	29.8 99.3	ND (0.59) ND (0.59)	ND (0.59) ND (0.59)	ND (0.59) ND (0.59)	ND (0.59) ND (0.59)	ND (0.59) ND (0.59)	ND (0.59) ND (0.59)				
Aylette (total)	ugn	1000	40.2	140 (0.38)	140 (0.58)	99.5	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.55)	140 (0.38)	140 (0.58)	ND (0.38)	ND (0.38)	140 (0.38)	ND (0.38)
MS Volatile TIC																
Total TIC, Semi-Volatile	ug/l	-	163.1 J	0	0	192.3 J	0	0	0	167.9 J	0	0	0	6.1 J	0	0
MC Cami valatilas (CM946 9270D)																
MS Semi-volatiles (SW846 8270D)																
Acenaphthene Acenaphthylene	ug/l	400	0.51 J ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	0.28 J ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	0.98 ND (0.13)	0.18 J ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)	ND (0.18) ND (0.13)
Acetophenone	ug/l ug/l	700	ND (0.13) ND (0.20)	0.22 J	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)	ND (0.13) ND (0.20)						
Anthracene	ug/l	2000	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)								
Atrazine Benzaldehyde	ug/l ug/l	3	ND (0.43) ND (0.28)	ND (0.43) ND (0.28)	ND (0.43) ND (0.28)	ND (0.43) ND (0.28)	ND (0.43) ND (0.28)	ND (0.43) ND (0.28)								
Benzo(g,h,i)perylene	ug/l	-	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)	ND (0.32)								
4-Bromophenyl phenyl ether Butyl benzyl phthalate	ug/l ug/l	100	ND (0.38) ND (0.44)	ND (0.38) ND (0.44)	ND (0.38) ND (0.44)	ND (0.38) ND (0.44)	ND (0.38) ND (0.44)	ND (0.38) ND (0.44)								
1,1'-Biphenyl	ug/l	400	0.93 J	ND (0.20)	ND (0.20)	0.49 J	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)				
2-Chloronaphthalene	ug/l	600	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)								
Carbazole	ug/l	-	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)								
Caprolactam Chrysene	ug/l	4000 5	ND (0.62) b ND (0.17)	ND (0.62) b ND (0.17)	ND (0.62) b ND (0.17)	ND (0.62) b ND (0.17)	ND (0.62) b ND (0.17)	ND (0.62) b ND (0.17)								
bis(2-Chloroethoxy)methane	ug/l ug/l	-	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17) ND (0.26)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17) ND (0.26)	ND (0.17)	ND (0.17)	ND (0.17)
bis(2-Chloroethyl)ether	ug/l	7	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)								
2,2'-Oxybis(1-chloropropane) 4-Chlorophenyl phenyl ether	ug/l ug/l	300	ND (0.38) ND (0.35)	ND (0.38) ND (0.35)	ND (0.38) ND (0.35)	ND (0.38) ND (0.35)	ND (0.38) ND (0.35)	ND (0.38) ND (0.35)								
2,4-Dinitrotoluene	ug/l	-	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)								
2,6-Dinitrotoluene 3,3'-Dichlorobenzidine	ug/l ug/l	30	ND (0.45) ND (0.48)	ND (0.45) ND (0.48)	ND (0.45) ND (0.48)	ND (0.45) ND (0.48)	ND (0.45) ND (0.48)	ND (0.45) ND (0.48)								
1,4-Dioxane	ug/l	0.4	-	-	-	-	-	-	-	-	-	-	-	-	()	(00)
Dibenzofuran Di-n-butyl phthalate	ug/l ug/l	700	ND (0.21) ND (0.47)	ND (0.21) ND (0.47)	ND (0.21) ND (0.47)	ND (0.21) ND (0.47)	ND (0.21) ND (0.47)	ND (0.21) ND (0.47)								
Di-n-octyl phthalate	ug/l	100	ND (0.22)	ND (0.47)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)					
Diethyl phthalate	ug/l	6000	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)								
bis(2-Ethylhexyl)phthalate	ug/l ug/l	3	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)								
Fluoranthene	ug/l	300 300	ND (0.16) 0.97	ND (0.16)	ND (0.16)	ND (0.16) 0.67 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16) 0.34 J	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16) ND (0.16)	ND (0.16)
Fluorene Hexachlorocyclopentadiene	ug/l ug/l	40	0.97 ND (2.6)	ND (0.16) ND (2.6)	ND (0.16) ND (2.6)	0.67 J ND (2.6)	ND (0.16) ND (2.6)	ND (0.16) ND (2.6)	ND (0.16) ND (2.6)	2.2 ND (2.6)	0.34 J ND (2.6)	ND (0.16) ND (2.6)	ND (0.16) ND (2.6)	ND (0.16) ND (2.6)	ND (0.16) ND (2.6)	ND (0.16) ND (2.6)
Hexachloroethane	ug/l	7	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)	ND (0.37)								
Isophorone 2-Methylnaphthalene	ug/l ug/l	40 30	ND (0.26) 11.4	ND (0.26) ND (0.20)	ND (0.26) ND (0.20)	ND (0.26) 5.8	ND (0.26) 0.21 J	ND (0.26) 0.36 J	ND (0.26) ND (0.20)	ND (0.26) 14.2	ND (0.26) 1.3	ND (0.26) ND (0.20)	ND (0.26) 0.24 J	ND (0.26) ND (0.20)	ND (0.26) ND (0.20)	ND (0.26) ND (0.20)
2-Nitroaniline	ug/l	-	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)								
3-Nitroaniline 4-Nitroaniline	ug/l ug/l	-	ND (0.37) ND (0.42)	ND (0.37) ND (0.42)	ND (0.37) ND (0.42)	ND (0.37) ND (0.42)	ND (0.37) ND (0.42)	ND (0.37) ND (0.42)								
Naphthalene	ug/l	300	5.4	ND (0.22)	ND (0.22)	4.5	ND (0.22)	0.29 J	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Nitrobenzene N-Nitroso-di-n-propylamine	ug/l ug/l	6 10	ND (0.61) ND (0.46)	ND (0.61) ND (0.46)	ND (0.61) ND (0.46)	ND (0.61) ND (0.46)	ND (0.61) ND (0.46)	ND (0.61) ND (0.46)								
N-Nitrosodiphenylamine	ug/I	10	ND (0.46) ND (0.21)	ND (0.46) ND (0.21)	ND (0.46) ND (0.21)	ND (0.46) ND (0.21)	ND (0.46) ND (0.21)	ND (0.46) ND (0.21)								
Phenanthrene Pyrene	ug/l	200	0.93 J ND (0.21)	ND (0.17) ND (0.21)	ND (0.17) ND (0.21)	0.47 J ND (0.21)	ND (0.17) ND (0.21)	ND (0.17) ND (0.21)	ND (0.17) ND (0.21)	2.2 ND (0.21)	0.18 J ND (0.21)	ND (0.17) ND (0.21)	ND (0.17) ND (0.21)	ND (0.17) ND (0.21)	ND (0.17) ND (0.21)	ND (0.17) ND (0.21)
1,2,4,5-Tetrachlorobenzene	ug/l ug/l	-	ND (0.21) ND (0.35)	ND (0.21) ND (0.35)	ND (0.21) ND (0.35)	ND (0.21) ND (0.35)	ND (0.21) ND (0.35)	ND (0.21) ND (0.35)								
MS Semi-volatiles (SW846 8270D BY	ou.															
	SIM)															

Benzo(a)anthracene

Hess Corporation Former Port Reading Complex 750 Cliff Road

Port Reading NJ Table 5.1

Client Sample ID:			SC-1	SC-1D	SC-1DD	SC-2	SC-2D	SC-2DD	SC-2DDD	SC-3	SC-3D	SC-3DD	SC-3DDD	SC-4	SC-4D	SC-4DD
Lab Sample ID:		NJ Groundwater	JC98078-14	JC98078-15	JC98078-16	JC98078-10	JC98078-13	JC98078-12	JC98078-11	JC98078-1	JC98078-2	JC98078-3	JC98078-4	JC98078-5	JC98078-6	JC98078-7
Date Sampled:		Criteria	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019	11/5/2019
Matrix:			Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Wate
Benzo(a)pyrene	ug/l	0.1	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.032)
Benzo(b)fluoranthene	ug/l	0.2	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)	ND (0.041)
Benzo(k)fluoranthene	ug/l	0.5	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
Dibenzo(a,h)anthracene	ug/l	0.3	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
Hexachlorobenzene	ug/l	0.02	ND (0.011)	0.0170 B	0.0134 JB	0.0132 JB	0.0175 B	0.0146 B	0.0151 B	ND (0.011)	ND (0.011)	0.0115 JB	0.0129 JB	ND (0.011)	ND (0.011)	ND (0.011)
Hexachlorobutadiene	ug/l	1	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
Indeno(1,2,3-cd)pyrene	ug/l	0.2	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
1,4-Dioxane	ug/l	0.4	0.24	0.159	0.317	ND (0.048)	0.269	ND (0.048)	ND (0.048)	0.0647 J	0.407	0.157	ND (0.048)	ND (0.048)	11	7.1
							,									
MS Semi-volatile TIC																
Total TIC, Semi-Volatile	ug/l	-	202.4 J	5.3 J	4.1 J	201.5 J	89.4 J	0	0	132.5 J	5.1 J	0	0	31.1 J	5.5 J	15 J
	•	•	•	•		•	•	•		•	•	•	•	•	•	
Metals Analysis																
																-
Aluminum	ug/l	200	403	<200	<200	1450	216	240	241	<200	798	<200	<200	1240	433	352
Antimony	ug/l	6	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<30 ^p	<30 ^p	<6.0	<6.0	<6.0
Arsenic	ug/l	3	14.2	1.7	<1.0	11	9.3	1.4	1.7	3	7.1	1.8	<1.0	3.1	9.1	3.4
Barium	ug/l	6000	315	227	361	1320	<200	<200	<200	3280	<200	<200	234	<200	<200	<200
Beryllium	ug/l	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0 ^p	<5.0 ^p	<1.0	<1.0	<1.0
Cadmium	ug/l	4	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<15 ^p	<15 ^p	<3.0	<3.0	<3.0
Calcium	ug/l	-	126000	70000	102000	62000	120000	39200	60800	178000	47200	878000	1390000	50700	33500	74500
Chromium	ug/l	70	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cobalt	ug/l	100	98.5	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Copper	ug/l	1300	108	<10	<10	<10	<10	<10	<10	<10	10.5	<50 ^p	<50 ^p	<10	<10	<10
Iron	ug/l	300	126000	253	6650	76700	156	24100	36200	88100	1540	629000	948000	15100	1570	2530
Lead	ug/l	5	<6.0 ^p	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<15 ^p	<75 ^p	8.5	<3.0	<3.0
Magnesium	ug/l	-	298000	12400	17400	117000	119000	9780	16900	126000	90700	284000	325000	24300	85000	148000
Manganese	ug/l	50	12300	30.9	158	664	106	590	1040	4940	114	14400 ^p	21500 ^p	323	123	311
Mercury	ug/l	2	<0.20	<0.20	<0.20	<0.20	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Nickel	ug/l	100	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50 ^p	<50 ^p	<10	<10	<10
Potassium	ug/l	-	146000	<10000	<10000	85800	30200	<10000	13600	35200	44000	87500	41400	42500	47900	65900
Selenium	ug/l	40	<20 ^p	<10	<10	<10	<10	<10	<10	<10	<10	<50 ^p	<50 ^p	<10	<10	<10
Silver	ug/l	40	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50 ^p	<50 ^p	<10	<10	<10
Sodium	ug/l	50000	2900000	54500	36000	1380000	775000	183000	110000	1150000	534000	2490000	1840000	284000	628000	1110000
Thallium	ug/l	2	<2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<1.0	<1.0	<1.0
Vanadium	ug/l	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<250 ^p	<250 ^p	<50	<50	<50
Zinc	ug/l	2000	41.6	<20	<20	34.6	<20	<20	<20	<20	44.1	40.8	39.3	<20	<20	<20

|ugi| 3000 36600 800 <200 15700 2900 <200 <200 6000 4200 1000 630 2800 3300 5200

Nitrogen, Ammonia

Nitrogen, Ammonia | ug/l | 3000 | 38600 | 800 | <200 |
Footnotes:
a Associated CCV outside of control limits low.
b Associated CCV outside of control limits ligh, sample was ND.
c This compound in BS is outside in house QC limits bias high.
d Associated CCV outside of control limits high, sample was ND.
This compound in BS is outside in house QC limits bias high.
e Associated CCV and BS outside of control limits high, sample was ND.
If this compound in BS is outside in house QC limits bias high.
Associated CCV and BS outside of control limits high, sample was ND.
f This compound in BS is outside in house QC limits bias high.
Associated CCV dustide of control limits high, sample was ND.
h Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Sample was ND.
I Estimated value, due to corresponding failure in the batch associated CCV.
J Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding failure in the batch associated CCV.
R Associated CCV outside of control limits low. Low-level verification was analyzed to demonstrate system suitability to detect affected analytes. Estimated value, due to corresponding failure in the batch associated CCV.
Result confirmed by reextraction outside of the holding time.
m Sample reextracted outside of the holding time.
m There is no sample left to reextract for confirmation.
n There is no sample detection limit due to difficult sample matrix.
p Elevated detection limit due to dilution required for high interfering element.
q Elevated detection limit due to dilution required for matrix interference.

ATTACHMENT 6

VAPOR INTRUSION FIGURES & TABLES

Figure 6.1 – 2010 Air Sampling Locations

Table 6.1 – 2010 Sub-slab Soil Gas Analytical Results

Table 6.2 – Indoor Air Analytical Results

Figure 6.2 – 2016 Sub-Slab Sampling Locations

Figure 6.3 – 2016 Indoor Air Sampling Locations

Table 6.3 – 2016 Sub-Slab Soil Gas Analytical Results

Table 6.4 – 2016 Indoor Air Analytical Results

Figure 6.4 – July 2020 Indoor Air Sampling Locations

Table 6.5 – July 2020 Indoor Air Analytical Results

* north -

●^{AD-1}



FIGURE #

HESS CORPORATION 750 CLIFF ROAD PORT READING, NEW JERSEY AOC 11 - ADMINISTRATION BUILDING AIR SAMPLING LOCATION MAP

SCALE IN FEET



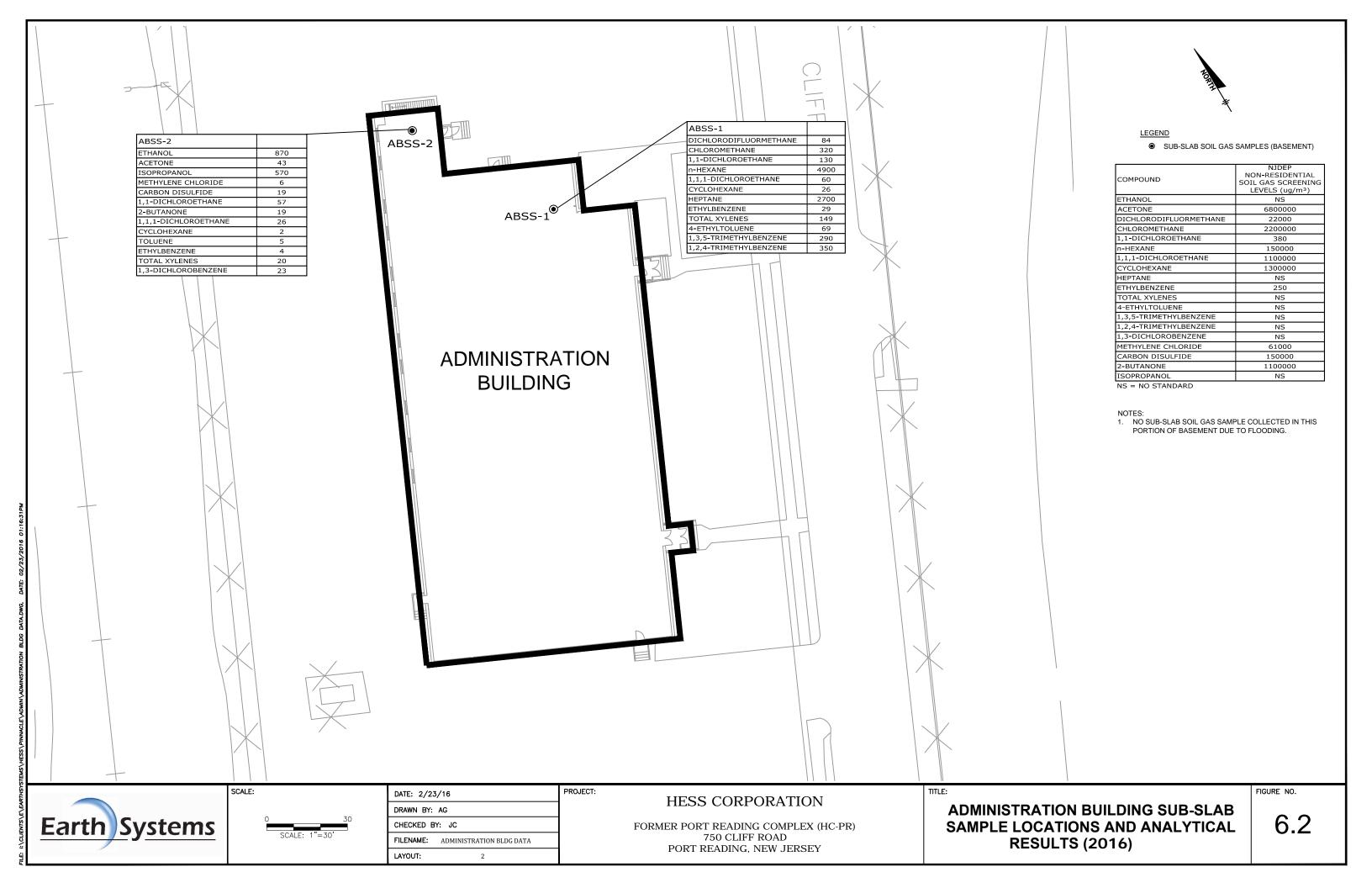
Table 6.1 2010 Summary of Soil Gas Analytical Results - Administration Building Hess Corporation - Port Reading Refinery 750 Cliff Road] Port Reading, New Jersey

Client Sample ID:		NJ Vapor	SUBSLAB-1	SUBSLAB-2
Lab Sample ID:		Intrusion Nonresidential	JA61380-7	JA61380-8
Date Sampled:		Soil Gas (NJAC	11/10/2010	11/10/2010
Matrix:		7:26E 3/13) ¹	Air	Air
GC/MS Volatiles (TO-15) - ug		0000000	4400	000
Acetone 1,3-Butadiene	ug/m3	6800000 20	1180 ND (1.5)	206 ND (0.24)
Benzene	ug/m3	79	24	3.8
Bromodichloromethane	ug/m3	34	ND (4.0)	ND (0.67)
Bromoform	ug/m3	560	ND (6.1)	ND (1.0)
Bromomethane	ug/m3	1100	ND (2.4)	ND (0.39)
Bromoethene	ug/m3	22	ND (3.4) ND (4.2)	ND (0.57) ND (0.72)
Benzyl Chloride Carbon disulfide	ug/m3 ug/m3	150000	146	18
Chlorobenzene	ug/m3	11000	ND (3.4)	ND (0.55)
Chloroethane	ug/m3	2200000	31.7	ND (0.53)
Chloroform	ug/m3	27	46	26
Chloromethane	ug/m3	20000	ND (2.7)	1.1 J
3-Chloropropene	ug/m3	100	ND (2.6)	ND (0.44)
2-Chlorotoluene Carbon tetrachloride	ug/m3 ug/m3	- 100	ND (4.0) ND (3.5)	ND (0.67) ND (0.57)
Cyclohexane	ug/m3	1300000	14 J	ND (0.57)
1,1-Dichloroethane	ug/m3	380	3220	ND (0.40)
1,1-Dichloroethylene	ug/m3	44000	89.2	ND (0.38)
1,2-Dibromoethane	ug/m3	38	ND (5.5)	ND (0.92)
1,2-Dichloroethane	ug/m3	24	ND (2.3)	ND (0.38)
1,2-Dichloropropane 1.4-Dioxane	ug/m3 ug/m3	61	ND (6.0) ND (3.4)	ND (1.0) ND (0.58)
Dichlorodifluoromethane	ug/m3	22000	15 J	2.2 J
Dibromochloromethane	ug/m3	43	ND (17)	ND (2.8)
trans-1,2-Dichloroethylene	ug/m3	13000	ND (3.3)	ND (0.56)
cis-1,2-Dichloroethylene	ug/m3	-	ND (3.0)	ND (0.52)
cis-1,3-Dichloropropene	ug/m3	-	ND (2.4)	ND (0.39)
m-Dichlorobenzene	ug/m3	-	ND (3.6)	ND (0.60)
o-Dichlorobenzene p-Dichlorobenzene	ug/m3 ug/m3	44000 56	ND (4.6) 39	ND (0.78) 20
trans-1,3-Dichloropropene	ug/m3	-	ND (8.6)	ND (1.4)
Ethanol	ug/m3	-	40.9	20.7
Ethylbenzene	ug/m3	250	ND (2.8)	4.8
Ethyl Acetate	ug/m3	-	ND (6.5)	ND (1.1)
4-Ethyltoluene	ug/m3	-	ND (2.9)	ND (0.47)
Freon 113 Freon 114	ug/m3 ug/m3	6600000	ND (4.8) ND (4.9)	ND (0.77) ND (0.84)
Heptane	ug/m3	-	27	1.7 J
Hexachlorobutadiene	ug/m3	53	ND (15)	ND (2.6)
Hexane	ug/m3	150000	37.4	2.1 J
2-Hexanone	ug/m3	-	60.9	12
Isopropyl Alcohol	ug/m3 ug/m3	- 61000	ND (3.2)	2.2 ND (0.39)
Methylene chloride Methyl ethyl ketone	ug/m3 ug/m3	1100000	ND (2.2) 104	ND (0.38) 15
Methyl Isobutyl Ketone	ug/m3	660000	38	5.7
Methyl Tert Butyl Ether	ug/m3	2400	ND (3.6)	ND (0.61)
Propylene	ug/m3	-	235	4.3
Styrene	ug/m3	220000	ND (2.7)	ND (0.47)
1,1,1-Trichloroethane	ug/m3	1100000	2760	ND (0.53)
1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane	ug/m3 ug/m3	34 38	ND (4.2) ND (3.2)	ND (0.69) ND (0.52)
1,2,4-Trichlorobenzene	ug/m3	440	ND (3.2)	ND (3.4)
1,2,4-Trimethylbenzene	ug/m3	-	15 J	5.4
1,3,5-Trimethylbenzene	ug/m3	-	ND (3.2)	ND (0.54)
2,2,4-Trimethylpentane	ug/m3	-	61.2	1.8 J
Tertiary Butyl Alcohol	ug/m3	- 2400	20 ND (6.5)	6.7
Tetrachloroethylene Tetrahydrofuran	ug/m3 ug/m3	2400	ND (6.5) ND (4.1)	1.6 ND (0.68)
Toluene	ug/m3	1100000	37	17
Trichloroethylene	ug/m3	150	ND (3.1)	1.5
Trichlorofluoromethane	ug/m3	150000	ND (4.3)	ND (0.73)
Vinyl chloride	ug/m3	140	ND (1.8)	ND (0.31)
Vinyl Acetate	ug/m3	-	ND (11)	ND (1.9)
m,p-Xylene o-Xylene	ug/m3 ug/m3	22000 22000	23 ND (2.6)	15
	uuri/m ⊀	//(((()	IND (2.6)	4.8

Table 6.2 2010 Summary of Indoor Air Analytical Results - Administration Building Hess Corporation - Port Reading Refinery 750 Cliff Road

Port Reading, New Jersey

Client Sample ID:		NJ Vapor Intrusion Rapid Action Levels -	NJ Vapor Intrusion Nonresidential	A-1	A-2	A-3	A-4	A-5	A-6	
Lab Sample ID:		Nonresidential	Indoor Air	JA61380-1	JA61380-2	JA61380-3	JA61380-4	JA61380-5	JA61380-6	
Date Sampled:		(NJAC 7:26E	(NJAC 7:26E	11/10/2010	11/10/2010	11/10/2010	11/10/2010	11/10/2010	11/10/2010	
Matrix:		3/13) ¹	3/13) ¹	Air	Air	Air	Air	Air	Air	
GC/MS Volatiles (TO-15) - ug/m3										
Acetone	ug/m3	280000	140000	5.2	7.8	7.1	5	12	14	
1,3-Butadiene	ug/m3	18	1	ND (0.062)						
Benzene	ug/m3	200	2	0.7	1.2	0.67	0.7	0.73	0.67	
Bromodichloromethane Bromoform	ug/m3	30 1100	3 11	ND (0.17) ND (0.26)						
Bromomethane	ug/m3 ug/m3	44	22	ND (0.26)	ND (0.26) ND (0.10)	ND (0.26) ND (0.10)	ND (0.26)	ND (0.26)	ND (0.26) ND (0.10)	
Bromoethene	ug/m3	26	2	ND (0.14)						
Benzyl Chloride	ug/m3	-	-	ND (0.14)	ND (0.18)					
Carbon disulfide	ug/m3	6200	3100	ND (0.090)						
Chlorobenzene	ug/m3	440	220	ND (0.14)						
Chloroethane	ug/m3	88000	44000	ND (0.13)						
Chloroform	ug/m3	50	2	ND (0.13)						
Chloromethane	ug/m3	780	390	1.2	1.2	1.4	1.3	1.4	1.4	
3-Chloropropene	ug/m3	8	2	ND (0.11)						
2-Chlorotoluene	ug/m3	-	-	ND (0.17)						
Carbon tetrachloride	ug/m3	200	3	0.62 J	0.63 J	ND (0.14)	0.63 J	ND (0.14)	0.61 J	
Cyclohexane	ug/m3	52000	26000	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.14)	0.41 J	ND (0.14)	
1,1-Dichloroethane 1,1-Dichloroethylene	ug/m3 ug/m3	800 1800	8 880	ND (0.10) ND (0.095)						
1,2-Dibromoethane	ug/m3	4	4	ND (0.093)						
1,2-Dishornocthane	ug/m3	50	2	ND (0.097)						
1,2-Dichloropropane	ug/m3	36	2	ND (0.25)						
1,4-Dioxane	ug/m3	-	-	ND (0.14)						
Dichlorodifluoromethane	ug/m3	880	440	2.7	2.7	2.8	2.9	2.8	3	
Dibromochloromethane	ug/m3	50	4	ND (0.70)						
trans-1,2-Dichloroethylene	ug/m3	520	260	ND (0.14)						
cis-1,2-Dichloroethylene	ug/m3	-	-	ND (0.12)						
cis-1,3-Dichloropropene	ug/m3	-	-	ND (0.10)						
m-Dichlorobenzene	ug/m3	-	-	ND (0.15)						
o-Dichlorobenzene	ug/m3	1800	880	ND (0.19)						
p-Dichlorobenzene	ug/m3	100	3	ND (0.16)	ND (0.16) ND (0.36)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	
trans-1,3-Dichloropropene Ethanol	ug/m3 ug/m3	-	-	ND (0.36) 10	8.5	ND (0.36) 7.7	ND (0.36) 8.5	ND (0.36) 79.1 E	ND (0.36) 98.0 E	
Ethylbenzene	ug/m3	500	5	0.48 J	0.56 J	ND (0.12)	ND (0.12)	0.56 J	0.48 J	
Ethyl Acetate	ug/m3	-	-	ND (0.28)	ND (0.28)	ND (0.12)	ND (0.28)	1.3	1.8	
4-Ethyltoluene	ug/m3	-	-	ND (0.12)						
Freon 113	ug/m3	260000	130000	ND (0.20)						
Freon 114	ug/m3	-	-	ND (0.20)						
Heptane	ug/m3	-	-	0.78 J	0.86	0.70 J	0.70 J	1	1	
Hexachlorobutadiene	ug/m3	60	5	ND (0.64)						
Hexane	ug/m3	6200	3100	1	0.95	0.81	0.88	0.95	0.88	
2-Hexanone	ug/m3	-	-	ND (0.18)						
Isopropyl Alcohol	ug/m3	-	-	1.1	1.2	0.93	0.84	45.2	110 E	
Methylene chloride Methyl ethyl ketone	ug/m3 ug/m3	5200 44000	1200 22000	1.4 2.5	1.1 5	1.1 1.8	1.3 1.8	1.4 3.2	1.3 2.6	
Methyl Isobutyl Ketone	ug/m3	26000	13000	ND (0.15)						
Methyl Tert Butyl Ether	ug/m3	4700	47	ND (0.15)	ND (0.16)					
Propylene	ug/m3	-	-	1.2	ND (0.16)					
Styrene	ug/m3	8800	4400	ND (0.11)						
1,1,1-Trichloroethane	ug/m3	44000	22000	0.55 J	ND (0.13)					
1,1,2,2-Tetrachloroethane	ug/m3	20	3	ND (0.17)						
1,1,2-Trichloroethane	ug/m3	3	3	ND (0.13)						
1,2,4-Trichlorobenzene	ug/m3	18	9	ND (0.89)						
1,2,4-Trimethylbenzene	ug/m3	-	-	1	1.3	0.54 J	0.54 J	0.88 J	0.74 J	
1,3,5-Trimethylbenzene	ug/m3	-	-	ND (0.13)						
2,2,4-Trimethylpentane	ug/m3	-	-	0.93	4 ND (0.40)	ND (0.098)	ND (0.098)	0.51 J	0.51 J	
Tertiary Butyl Alcohol	ug/m3	- 260	- 47	ND (0.12)						
Tetrachloroethylene Tetrahydrofuran	ug/m3 ug/m3	360	-	ND (0.27) ND (0.17)	ND (0.27) 0.38 J	ND (0.27) ND (0.17)	ND (0.27) ND (0.17)	ND (0.27) ND (0.17)	ND (0.27) ND (0.17)	
Toluene	ug/m3	44000	22000	2.4	2.4	2.1	2.1	3.3	3.1	
Trichloroethylene	ug/m3	18	3	ND (0.13)						
Trichlorofluoromethane	ug/m3	6200	3100	1.7	1.6	1.5	1.6	1.8	1.7	
Vinyl chloride	ug/m3	300	3	ND (0.074)						
Vinyl Acetate	ug/m3	-	-	ND (0.46)						
m,p-Xylene	ug/m3	880	440	1.9	2.3	1.2	1.1	1.8	1.6	
o-Xylene	ug/m3	880	440	0.69 J	0.74 J	ND (0.11)	ND (0.11)	0.65 J	0.52 J	
Xylenes (total)	ug/m3	880	440	2.6	3.1	1.2	1.1	2.4	2.1	



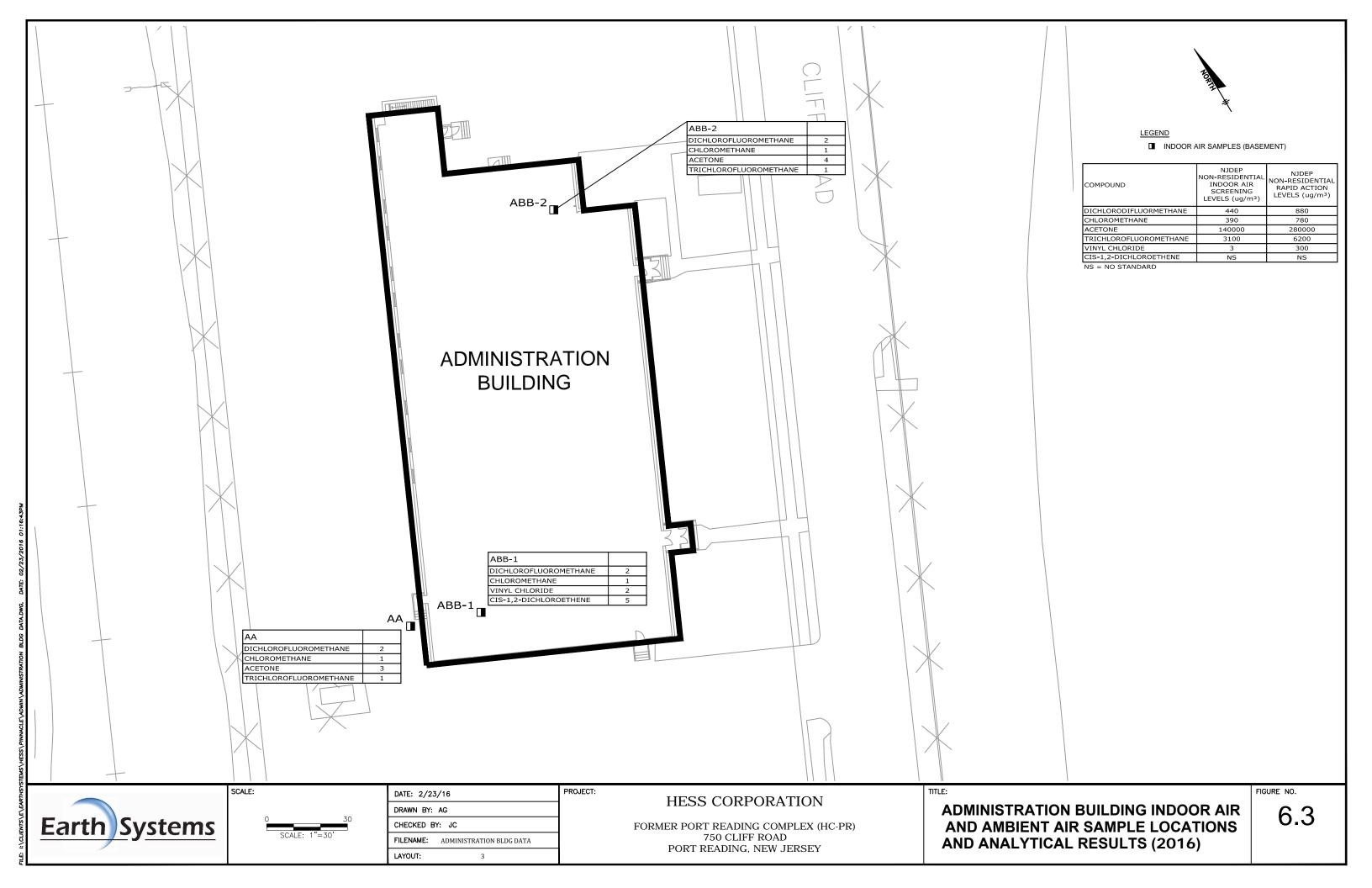


Table 6.3 2016 Summary of Soil Gas Analytical Results - Administration Building Hess Corporation - Port Reading Refinery 750 Cliff Road Port Reading, Middlesex County, New Jersey

LOCATION	NJ Non-Residential		ABSS-1		ABSS-2	
SAMPLING DATE	Soil Gas Screening		1/30/2016		1/30/2016	
LAB SAMPLE ID	Levels		L1602644-10		L1602644-11	
NJ Volatile Organics in Air - Mans						
Dichlorodifluoromethane	22000	ug/m3	3	U	84	
Chloromethane	20000	ug/m3	<u> </u>	U	10 30	U
Freon-114 Vinyl chloride	140	ug/m3 ug/m3	1	U	10	U
1,3-Butadiene	20	ug/m3	1	Ü	10	Ü
Bromomethane	1100	ug/m3	2	Ü	20	Ü
Chloroethane	2200000	ug/m3	1	U	320	
Ethanol		ug/m3	870		230	U
Vinyl bromide	22	ug/m3	2	U	20	U
Acetone Trichlorofluoromethane	6800000 150000	ug/m3 ug/m3	43 3	U	60 30	U
Isopropanol	150000	ug/m3	570	U	30	U
1,1-Dichloroethene	44000	ug/m3	2	U	20	Ü
Tertiary butyl Alcohol	11000	ug/m3	4	Ü	36	Ü
Methylene chloride	61000	ug/m3	6		40	U
3-Chloropropene	100	ug/m3	2	U	20	U
Carbon disulfide	150000	ug/m3	19		20	U
Freon-113	6600000	ug/m3	4	U	40	U
trans-1,2-Dichloroethene	13000	ug/m3	2	U	20	U
1,1-Dichloroethane Methyl tert butyl ether	380 2400	ug/m3 ug/m3	57 2	U	130 20	U
2-Butanone	1100000	ug/m3	19	U	40	Ü
cis-1,2-Dichloroethene	1100000	ug/m3	2	U	20	Ü
Chloroform	27	ug/m3	3	Ü	20	Ü
Tetrahydrofuran		ug/m3	4	U	40	U
1,2-Dichloroethane	24	ug/m3	2	U	20	U
n-Hexane	150000	ug/m3	2	U	4900	
1,1,1-Trichloroethane	1100000	ug/m3	26		60	
Benzene	79	ug/m3	2	U	20	U
Carbon tetrachloride	100	ug/m3	3	U	30	U
Cyclohexane 1,2-Dichloropropane	1300000 61	ug/m3 ug/m3	2 2	U	26 20	U
Bromodichloromethane	34	ug/m3	4	U	30	Ü
1,4-Dioxane		ug/m3	2	U	20	Ü
Trichloroethene	150	ug/m3	3	Ü	30	Ü
2,2,4-Trimethylpentane		ug/m3	2	U	20	U
Methyl Methacrylate		ug/m3	5	U	50	U
Heptane		ug/m3	2	U	2700	
cis-1,3-Dichloropropene	150	ug/m3	2	U	20	U
4-Methyl-2-pentanone	660000	ug/m3	5	U	50	U
trans-1,3-Dichloropropene	150 38	ug/m3	3	U	20 30	U
1,1,2-Trichloroethane Toluene	1100000	ug/m3 ug/m3	5	U	18	U
Dibromochloromethane	43	ug/m3	5	U	40	Ü
1.2-Dibromoethane	38	ug/m3	4	Ü	40	U
Tetrachloroethene	2400	ug/m3	4	U	30	U
Chlorobenzene	11000	ug/m3	2	U	20	U
Ethylbenzene	250	ug/m3	4		29	
p/m-Xylene		ug/m3	15		120	
Bromoform	560	ug/m3	5	U	50	U
Styrene	220000	ug/m3	2	U	20	U
1,1,2,2-Tetrachloroethane o-Xylene	34	ug/m3	<u>4</u> 5	U	30 29	U
2-Chlorotoluene		ug/m3 ug/m3	3	U	30	U
4-Ethyltoluene		ug/m3	3	U	69	U
1,3,5-Trimethybenzene		ug/m3	3	U	290	
1,2,4-Trimethylbenzene		ug/m3	3	U	350	
1,3-Dichlorobenzene		ug/m3	23		30	U
1,4-Dichlorobenzene	56	ug/m3	3	U	30	U
1,2-Dichlorobenzene	44000	ug/m3	3	U	30	U
1,2,4-Trichlorobenzene	440	ug/m3	4	U	40	U
Hexachlorobutadiene	53	ug/m3	6	U	50	U

Table 6.4 2016 Summary of Indoor Air Analytical Results - Administration Building Hess Corporation - Port Reading Refinery 750 Cliff Road

Port Reading, Middlesex County, New Jersey

LOCATION	NJ Non- Residential Rapid Action	NJ - Non- Residential Indoor Air		ABB-1	ABB-2	AA	
SAMPLING DATE	Level	Screening Level		1/30/2016	1/30/2016	1/30/2016	
LAB SAMPLE ID		Levei		L1602644-01	L1602644-02	L1602644-09	
NJ Volatile Organics in Air							
Dichlorodifluoromethane	880 780	440 390	ug/m3	2	1	2	
Chloromethane Freon-114	780	390	ug/m3 ug/m3	1 1 U			
Vinyl chloride	300	3	ug/m3	2	0.5 U		
1,3-Butadiene	18	1	ug/m3	0.4 U			
Bromomethane	44	22	ug/m3	0.8 U			
Chloroethane	88000	44000	ug/m3	0.5 U			
Ethanol			ug/m3	9 U	9 U		
Vinyl bromide	26	2	ug/m3	0.9 U			
Acetone	280000	140000	ug/m3	2 U		3	
Trichlorofluoromethane	6200	3100	ug/m3	1 U		1	
Isopropanol	1000	000	ug/m3	1 U			
1,1-Dichloroethene	1800	880	ug/m3	0.8 U			
Tertiary butyl Alcohol Methylene chloride	5200	1200	ug/m3 ug/m3	2 U			
3-Chloropropene	8	2	ug/m3	0.6 U	_		
Carbon disulfide	6200	3100	ug/m3	0.6 U			
Freon-113	260000	130000	ug/m3	2 U			
trans-1,2-Dichloroethene	520	260	ug/m3	0.8 U			
1,1-Dichloroethane	800	8	ug/m3	0.8 U	0.8 U	0.8 U	
Methyl tert butyl ether	4700	47	ug/m3	0.7 U			
2-Butanone	44000	22000	ug/m3	1 U			
cis-1,2-Dichloroethene			ug/m3	5	0.8 U		
Chloroform	50	2	ug/m3	1 U			
Tetrahydrofuran	50		ug/m3	1 U			
1,2-Dichloroethane n-Hexane	50 6200	2 3100	ug/m3 ug/m3	0.8 U 0.7 U			
1,1,1-Trichloroethane	44000	22000	ug/m3	1 U			
Benzene	200	2	ug/m3	0.6 U			
Carbon tetrachloride	200	3	ug/m3	1 U			
Cyclohexane	52000	26000	ug/m3	0.7 U			
1,2-Dichloropropane	36	2	ug/m3	0.9 U	0.9 U		
Bromodichloromethane	30	3	ug/m3	1 U	1 U		
1,4-Dioxane			ug/m3	0.7 U	0.7 U		
Trichloroethene	18	3	ug/m3	1 U	_		
2,2,4-Trimethylpentane			ug/m3	0.9 U			
Methyl Methacrylate			ug/m3	2 U 0.8 U			
Heptane cis-1.3-Dichloropropene	180	3	ug/m3 ug/m3	0.8 U			
4-Methyl-2-pentanone	26000	13000	ug/m3	2 U			
trans-1,3-Dichloropropene	180	3	ug/m3	0.9 U			
1,1,2-Trichloroethane	3	3	ug/m3	1 U			
Toluene	44000	22000	ug/m3	0.8 U	0.8 U	0.8 U	
Dibromochloromethane	50	4	ug/m3	2 U			
1,2-Dibromoethane	4	4	ug/m3	2 U	_		
Tetrachloroethene	360	47	ug/m3	1 U			
Chlorobenzene	440	220	ug/m3	0.9 U			
Ethylbenzene	500	5	ug/m3	0.9 U			
p/m-Xylene	1100	4.4	ug/m3	2 U			
Bromoform Styrene	1100 8800	11 4400	ug/m3 ug/m3	2 U 0.9 U			
1,1,2,2-Tetrachloroethane	20	3	ug/m3	0.9 U			
2-Chlorotoluene	20	3	ug/m3	1 U			
4-Ethyltoluene			ug/m3	1 U			
1,3,5-Trimethybenzene			ug/m3	1 U			
1,2,4-Trimethylbenzene			ug/m3	1 U	1 U	1 U	
1,3-Dichlorobenzene			ug/m3	1 U		1 U	
1,4-Dichlorobenzene	100	3	ug/m3	1 U			
1,2-Dichlorobenzene	1800	880	ug/m3	1 U			
1,2,4-Trichlorobenzene	18	9	ug/m3	1 U			
Hexachlorobutadiene	60	5	ug/m3	2 U	2 U	2 U	

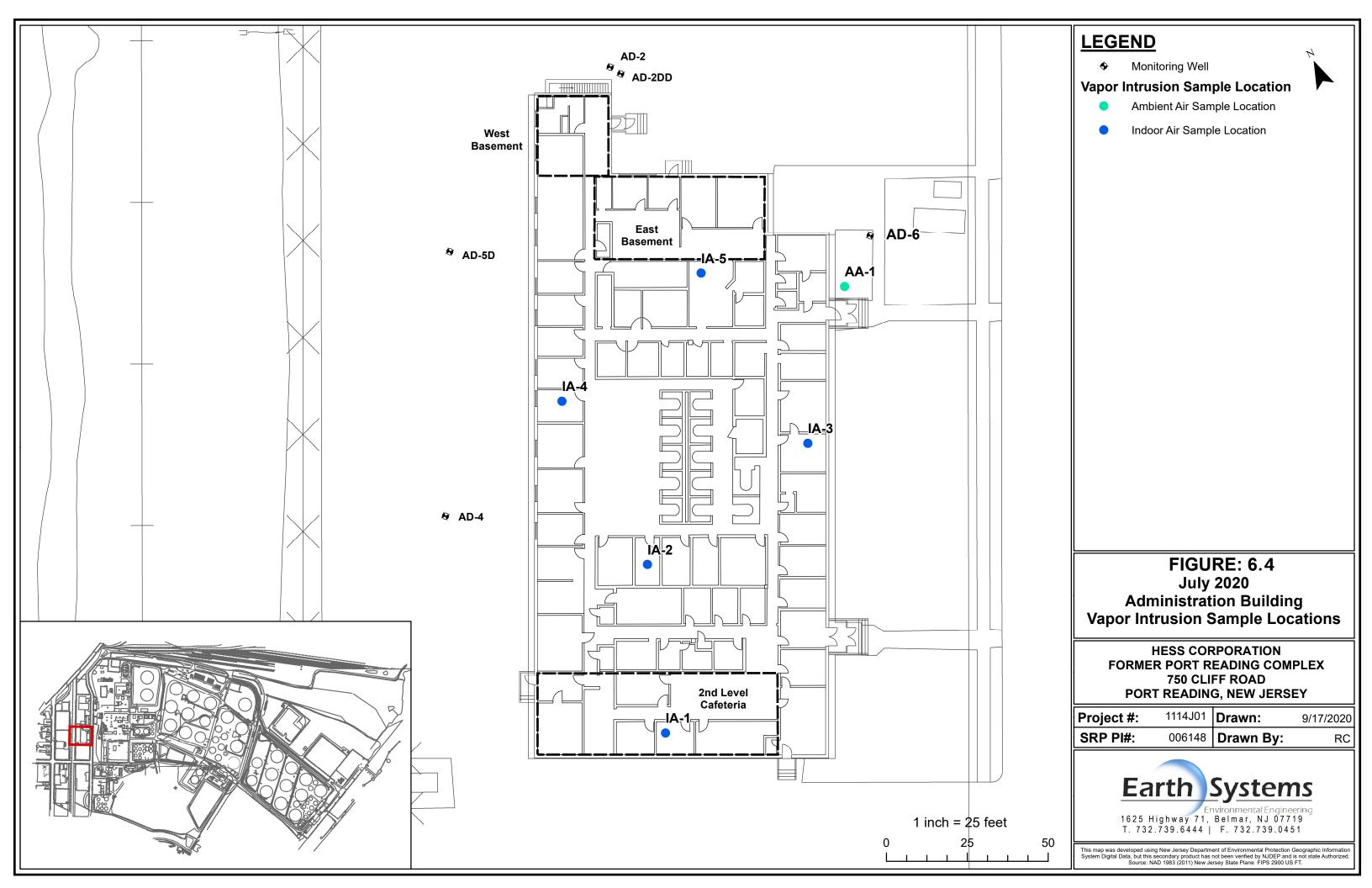


Table 6.5

Hess Corporation Former Port Reading Terminal 750 Cliff Road Port Reading, New Jersey

July 2020 Indoor Air Sampling Analytical Results - Administration Building

Client Sample ID:		NJ Vapor Intrusion	NJ Vapor Intrusion Rapid Action	IA-1	IA-2	IA-3	IA-4	IA-5	AA-1
Lab Sample ID:		Nonresidential Indoor Air (NJAC	Levels -	JD10661-1	JD10661-2	JD10661-3	JD10661-4	JD10661-5	JD10661-6
Date Sampled:		7:26E 3/13)	Nonresidential (NJAC 7:26E 3/13)	7/23/2020	7/23/2020	7/23/2020	7/23/2020	7/23/2020	7/23/2020
Matrix:			(NJAC 7.20E 3/13)	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air
MS Volatiles TO-15									
				20.7	T 00	I 00.5	25.0		
Acetone	ug/m3	140000	280000	68.7	22 ND (0.10)	28.5	25.2	31.8 ND (0.10)	11 ND (0.10)
1,3-Butadiene Benzene	ug/m3 ug/m3	1 2	18 200	ND (0.10) 0.73	0.35 J	ND (0.10) 0.58 J	ND (0.10) 0.54 J	0.67	ND (0.10) 0.42 J
Bromodichloromethane	ug/m3	3	30	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
Bromoform	ug/m3	11	1100	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
Bromomethane	ug/m3	22	44	ND (0.085)	ND (0.085)	ND (0.085)	ND (0.085)	ND (0.085)	ND (0.085)
Bromoethene	ug/m3	2	26	ND (0.096)	ND (0.096)	ND (0.096)	ND (0.096)	ND (0.096)	ND (0.096)
Benzyl Chloride	ug/m3	-	-	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
Carbon disulfide	ug/m3	3100	6200	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)
Chlorobenzene	ug/m3	220	440	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
Chloroethane Chloroform	ug/m3 ug/m3	44000	88000 50	ND (0.13) ND (0.098)	ND (0.13) ND (0.098)	ND (0.13) ND (0.098)	ND (0.13) 0.98	ND (0.13) ND (0.098)	ND (0.13) ND (0.098)
Chloromethane	ug/m3	390	780	1.4	0.83	1.4	1.3	1.5	1.2
3-Chloropropene	ug/m3	2	8	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
2-Chlorotoluene	ug/m3	-	-	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
Carbon tetrachloride	ug/m3	3	200	ND (0.15)	ND (0.15)	ND (0.15)	1.0 J	0.55 J	0.55 J
Cyclohexane	ug/m3	26000	52000	0.69	ND (0.076)	0.45 J	ND (0.076)	0.41 J	ND (0.076)
1,1-Dichloroethane	ug/m3	8	800	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.049)	ND (0.049)
1,1-Dichloroethylene	ug/m3	880	1800	ND (0.067)	ND (0.067)	ND (0.067)	ND (0.067)	ND (0.067)	ND (0.067)
1,2-Dibromoethane 1,2-Dichloroethane	ug/m3 ug/m3	2	4 50	ND (0.14) ND (0.085)	ND (0.14) ND (0.085)	ND (0.14) ND (0.085)	ND (0.14)	ND (0.14) ND (0.085)	ND (0.14) ND (0.085)
1,2-Dichloropropane	ug/m3	2	36	ND (0.088)	ND (0.085) ND (0.088)	ND (0.085) ND (0.088)	ND (0.085)	ND (0.085) ND (0.088)	ND (0.085) ND (0.088)
1,4-Dioxane	ug/m3	-	-	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.000)	ND (0.19)
Dichlorodifluoromethane	ug/m3	440	880	2.5	1.4	2.5	2.5	2.6	2.7
Dibromochloromethane	ug/m3	4	50	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)
trans-1,2-Dichloroethylene	ug/m3	260	520	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)	ND (0.029)
cis-1,2-Dichloroethylene	ug/m3	-	-	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)	ND (0.048)
cis-1,3-Dichloropropene	ug/m3	-	-	ND (0.091)	ND (0.091)	ND (0.091)	ND (0.091)	ND (0.091)	ND (0.091)
m-Dichlorobenzene o-Dichlorobenzene	ug/m3 ug/m3	- 880	1800	ND (0.11) ND (0.13)	ND (0.11) ND (0.13)	ND (0.11) ND (0.13)	ND (0.11) ND (0.13)	ND (0.11) ND (0.13)	ND (0.11) ND (0.13)
p-Dichlorobenzene	ug/m3	3	100	ND (0.13)	ND (0.13)	ND (0.13) ND (0.11)	ND (0.13)	ND (0.13)	ND (0.13)
trans-1,3-Dichloropropene	ug/m3		-	ND (0.091)	ND (0.091)	ND (0.091)	ND (0.091)	ND (0.091)	ND (0.091)
Ethanol	ug/m3	-	-	190 E	103 E	187 E	147 E	176 E	11
Ethylbenzene	ug/m3	5	500	1	ND (0.065)	0.52 J	0.43 J	0.61 J	ND (0.065)
Ethyl Acetate	ug/m3	-	-	35	8.6	12	8.6	7.2	6.1
4-Ethyltoluene	ug/m3	-	-	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)
Freon 113	ug/m3	130000	260000	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
Freon 114 Heptane	ug/m3	-	-	ND (0.13) 8.2	ND (0.13) 1.2	ND (0.13) 2.5	ND (0.13)	ND (0.13) 1.8	ND (0.13) ND (0.074)
Hexachlorobutadiene	ug/m3 ug/m3	5	60	ND (0.49)	ND (0.49)	2.5 ND (0.49)	ND (0.49)	ND (0.49)	ND (0.49)
Hexane	ug/m3	3100	6200	1.5	0.7	1.2	1.7	1.2	3
2-Hexanone	ug/m3	-	-	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)
Isopropyl Alcohol	ug/m3	-	-	13	8.6	13	13	23	2.7
Methylene chloride	ug/m3	1200	5200	ND (0.052)	ND (0.052)	ND (0.052)	4.5	ND (0.052)	21
Methyl ethyl ketone	ug/m3	22000	44000	7.7	1.8	2.9	2.5	3.2	1.2
Methyl Isobutyl Ketone	ug/m3	13000	26000	1.4	ND (0.15)	ND (0.15)	ND (0.15)	1.3	ND (0.15)
Methyl Tert Butyl Ether Methylmethacrylate	ug/m3 ug/m3	47	4700	ND (0.069) ND (0.14)	ND (0.069) ND (0.14)	ND (0.069) ND (0.14)	ND (0.069) ND (0.14)	ND (0.069) ND (0.14)	ND (0.069) ND (0.14)
Propylene	ug/m3	-	•	ND (0.14) ND (0.027)	ND (0.14) ND (0.027)	ND (0.14) ND (0.027)	ND (0.14) ND (0.027)	ND (0.14) 3.1	ND (0.14) ND (0.027)
Styrene	ug/m3	4400	8800	4.7	ND (0.021)	ND (0.027)	ND (0.027)	ND (0.081)	ND (0.021)
1,1,1-Trichloroethane	ug/m3	22000	44000	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.60 J	ND (0.18)
1,1,2,2-Tetrachloroethane	ug/m3	3	20	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,1,2-Trichloroethane	ug/m3	3	3	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,2,4-Trichlorobenzene	ug/m3	9	18	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.66)	ND (0.66)
1,2,4-Trimethylbenzene	ug/m3	-	-	2.6	ND (0.16)	0.74 J	0.74 J	1.4	ND (0.16)
1,3,5-Trimethylbenzene	ug/m3	-	-	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
2,2,4-Trimethylpentane Tertiary Butyl Alcohol	ug/m3 ug/m3	-	-	1.5 75.2	0.70 J 0.73	1.2 ND (0.042)	0.98 ND (0.042)	1.1	0.51 J ND (0.042)
Tetrachloroethylene	ug/m3	47	360	0.88	0.73	1.4	1.2	0.81	0.81
Tetrahydrofuran	ug/m3	-	-	83.2	0.38 J	0.59	ND (0.15)	0.56 J	ND (0.15)
Toluene	ug/m3	22000	44000	9	1.5	2.3	2.1	2.3	1.1
Trichloroethylene	ug/m3	3	18	0.23	ND (0.10)	0.45	0.47	0.3	0.97
Trichlorofluoromethane	ug/m3	3100	6200	1.5	0.84 J	1.4	2.6	1.5	5.4
Vinyl chloride	ug/m3	3	300	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)	ND (0.056)
Vinyl Acetate	ug/m3	-	-	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)	ND (0.12)
m,p-Xylene	ug/m3	440	880	2.6	1.1 0.48 J	1.9	1.6	2.3	0.78 J
o-Xylene Xylenes (total)	ug/m3	440 440	880 880	1.3		0.78 J	0.65 J	0.87	ND (0.074)
Xylenes (total)	ug/m3	440	880	3.9	1.6	2.6	2.2	3.1	0.78 J

ATTACHMENT 7

SURFACE WATER & SEDIMENT FIGURES & TABLES

Figure 7.1 – Surface Water Sampling Locations (Eco Exceedances Highlighted)

Table 7.1 – Summary of Surface Water Analytical Results – Detention Basin

Table 7.2 - Summary of Surface Water Analytical Results - Smith Creek & Smith Creek Pond

Figure 7.2 - Detention Basin Sediment Results - VOCs

Figure 7.3 - Smith Creek & Smith Creek Pond Sediment Results - VOCs

Figure 7.4 – Detention Basin Deep Sediment Results

Figure 7.5 - Smith Creek & Smith Creek Pond Deep Sediment Results

Figure 7.6 – Detention Basin Sediment Results – SVOCs/EPH

Figure 7.7 - Smith Creek & Smith Creek Pond Sediment Results - SVOCs/EPH

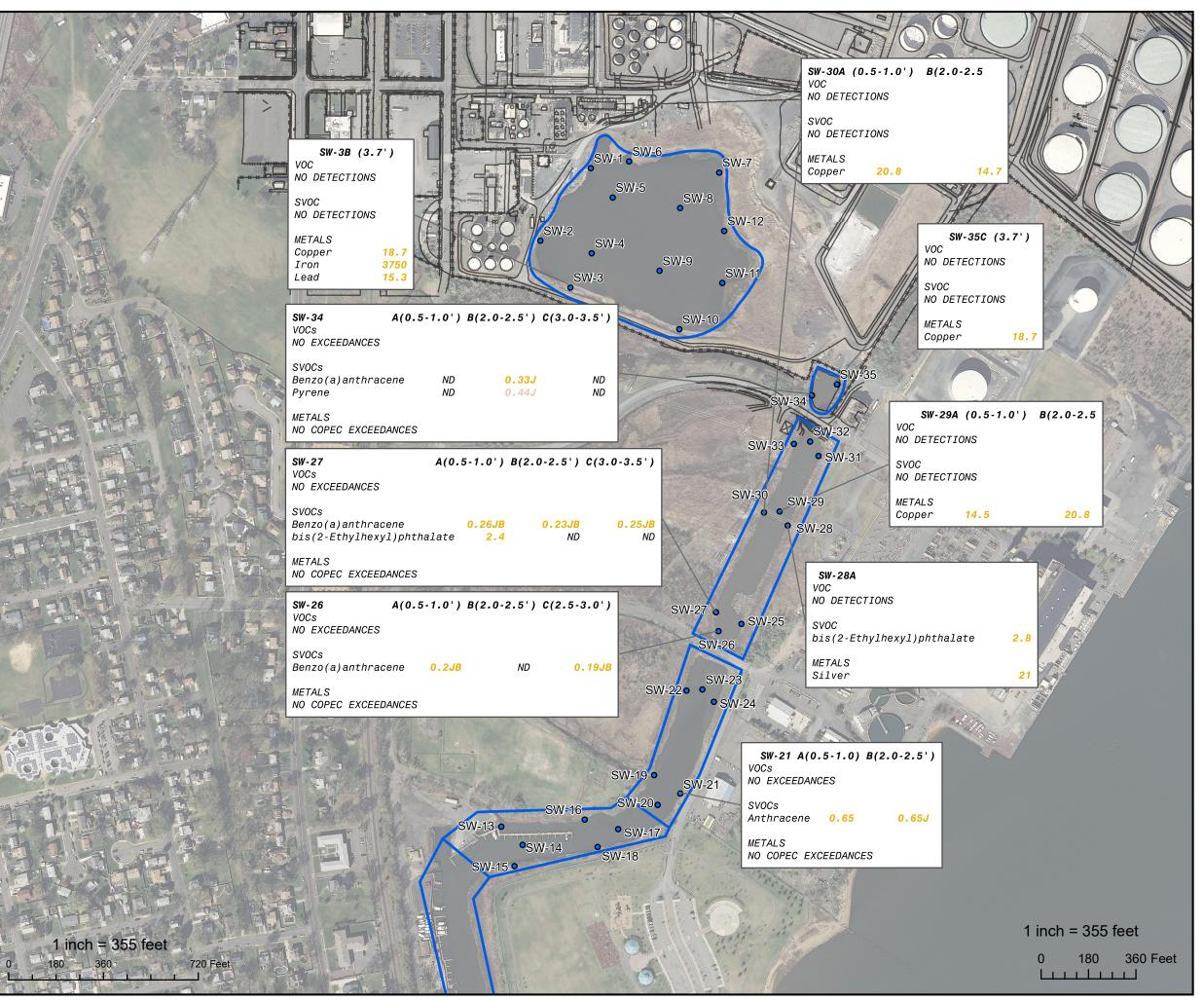
Figure 7.8 – Detention Basin Sediment Results – Metals

Figure 7.9 – Smith Creek & Smith Creek Pond Sediment Results – Metals

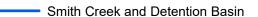
Table 7.3 – Summary of Sediment Analytical Results (Detention Basin)

Table 7.4 – Summary of Sediment Analytical Results (Smith Creek & Smith Creek Pond)

Table 7.5 – Summary of Analytical Results (Deep Sediment)



Surface Water Sample Location



NOTES:

Over Criteria = ORANGE

- All results provided in parts per billion (ug/L)

Expressed as a function of water hardness; an average water hardness of 108.9 mg/L was calculated and applied to the

screening value calculation

USEPA National Recommended Water Quality Criterion ³USEPA Region 3 BTAG marine or freshwater screening benchmark (USEPA 2015)

- Estimated Value

B - Found in Blank

ND - Non Detect

SW-1 thru SW-12: Detention Basin -

NJDEP Ecological Aquatic Life Freshwater

Chronic Criterion

SW-13 thru SW-33: Smith's Creek -NJDEP Ecological Saline Aquatic Life

Chronic Criterion

SW-33 thru SW-35: Smith's Creek Pond - NJDEP Ecological Saline

Aquatic Life Chronic

SURFACE WATER ANALYTICAL EXCEEDANCES VOC, SVOC, METALS

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 7.1

Drawn By: ΑE **Date:** 01/17/2020



Table 7-1

Detention Basin Surface Water - Human Health
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

Client Sample ID:		NJDEP Ecological	SS-1B	SS-1M	SS-1T	SS-2B	SS-2M	SS-2T	SS-3B	SS-3M	SS-3T	SS-4B
Lab Sample ID:		Surface Water-	JC77633-3	JC77633-4	JC77633-5	JC77633-6	JC77633-7	JC77633-8	JC77633-9	JC77633-10	JC77633-11	JC77633-12
Date Sampled:		Freshwater Human Health	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018
Matrix:		Screening	Water	Water	Water	Water	Water	Water	Water	Water	Water	Water
Metals Analysis												
Aluminum	ug/l	NC	<200	507	<200	<200	<200	<200	1420	<200	<200	<200
Arsenic	ug/l	0.017	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.1	<3.0	<3.0	<3.0
Calcium	ug/l	NT	26800	27000	27100	27300	26300	27500	29100	27300	27600	27900
Chromium	ug/l	92	<10	<10	<10	<10	<10	<10	30	<10	<10	<10
Copper	ug/l	1,300	<10	<10	<10	<10	<10	<10	18.7	<10	<10	<10
Iron	ug/l	NC	187	507	154	<100	<100	<100	3750	<100	120	149
Lead	ug/l	5.00	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	15.3	<3.0	<3.0	<3.0
Magnesium	ug/l	NT	10300	10400	10300	10300	10000	10400	11100	10300	10400	10500
Manganese	ug/l	50(e)	16.4	28.5	15.7	16	15	15.8	137	20	19.9	33.4
Sodium	ug/l	NT	87900	88400	89200	89200	85900	89900	90100	89000	90200	90500
Zinc	ug/l	7,400	<20	<20	<20	<20	<20	<20	40.1	<20	<20	<20
General Chemistry												
Chloride	ug/l	250,000	100000	96700	98500	98200	98100	97400	95500	98500	97400	98300
Nitrogen, Nitrate	ug/l	NC	<110 ^e	150 ^e	<110 ^e	<110 ^e	<110 ^e	<110 ^e				
Nitrogen, Nitrate + Nitrite	ug/l	NC	<100	<100	<100	<100	<100	150	<100	<100	<100	<100
Solids, Total Dissolved	ug/l	NC	321000	296000	299000	268000	276000	310000	305000	306000	300000	320000

Table 7-1

Detention Basin Surface Water - Human Health
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

Client Sample ID:		NJDEP Ecological	SS-4M	SS-4T	SS-5B	SS-5M	SS-5T	SS-6B	SS-6M	SS-6T	SS-7B	SS-7M
Lab Sample ID:		Surface Water-	JC77633-13	JC77633-14	JC77633-15	JC77633-16	JC77633-17	JC77633-18	JC77633-19	JC77633-20	JC77633-21	JC77633-22
Date Sampled:		Freshwater Human Health	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018
Matrix:		Screening	Water Water	Water	Water							
Metals Analysis												
Aluminum	ug/l	NC	<200	<200	<200	<200	<200	320	<200	<200	566	<200
Arsenic	ug/l	0.017	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Calcium	ug/l	NT	27300	27200	26100	26800	27300	26300	26800	26500	27200	26100
Chromium	ug/l	92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Copper	ug/l	1,300	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iron	ug/l	NC	<100	<100	102	157	<100	581	<100	<100	751	189
Lead	ug/l	5.00	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.3	<3.0
Magnesium	ug/l	NT	10300	10200	10100	10200	10300	10100	10100	10000	10300	9830
Manganese	ug/l	50(e)	19.2	18.6	17.4	16	15.3	21.6	<15	<15	21	<15
Sodium	ug/l	NT	89000	88800	87200	88400	89800	87200	88500	87600	88800	86200
Zinc	ug/l	7,400	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
General Chemistry												
Chloride	ug/l	250,000	99100	100000	97200	98100	96900	95300	97600	100000	96600	102000
Nitrogen, Nitrate	ug/l	NC	<110 ^e	130 ^e	<110 ^e	<110 ^e	<110 ^e					
Nitrogen, Nitrate + Nitrite	ug/l	NC	<100	<100	<100	<100	100	<100	130	<100	<100	<100
Solids, Total Dissolved	ug/l	NC	292000	280000	282000	296000	282000	258000	288000	302000	275000	292000

Table 7-1

Detention Basin Surface Water - Human Health
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

Client Sample ID:		NJDEP Ecological	SS-7T	SS-8B	SS-8M	SS-8T	SS-9B	SS-9M	SS-9T	SS-10B	SS-10M	SS-10T
Lab Sample ID:		Surface Water-	JC77633-23	JC77633-24	JC77633-25	JC77633-26	JC77633-27	JC77633-28	JC77633-29	JC77633-30	JC77633-31	JC77633-32
Date Sampled:		Freshwater Human Health	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018
Matrix:		Screening	Water									
Metals Analysis												
Aluminum	ug/l	NC	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Arsenic	ug/l	0.017	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Calcium	ug/l	NT	25600	26600	26500	26900	26900	25400	27700	26600	26600	26800
Chromium	ug/l	92	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Copper	ug/l	1,300	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iron	ug/l	NC	<100	<100	132	<100	<100	<100	<100	106	137	<100
Lead	ug/l	5.00	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium	ug/l	NT	9690	10000	9940	10100	10100	10100	10400	9980	9930	10000
Manganese	ug/l	50(e)	<15	<15	15.5	<15	<15	<15	<15	21.5	15.9	15.3
Sodium	ug/l	NT	84900	88500	88300	89000	89200	84600	91600	87600	87700	88600
Zinc	ug/l	7,400	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
General Chemistry												
Chloride	ug/l	250,000	102000	102000	102000	102000	103000	102000	102000	101000	102000	102000
Nitrogen, Nitrate	ug/l	NC	<110 ^e									
Nitrogen, Nitrate + Nitrite	ug/l	NC	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Solids, Total Dissolved	ug/l	NC	278000	274000	264000	284000	288000	290000	264000	235000	274000	276000

Table 7-1

Detention Basin Surface Water - Human Health Former Hess Port Reading Terminal Site Port Reading, New Jersey

Client Sample ID:		NJDEP Ecological	SS-11B	SS-11M	SS-11T	SS-12B	SS-12M	SS-12T
Lab Sample ID:		Surface Water- Freshwater	JC77633-33	JC77633-34	JC77633-35	JC77633-36	JC77633-37	JC77633-38
Date Sampled:		Human Health	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018	11/8/2018
Matrix:		Screening	Water	Water	Water	Water	Water	Water
Metals Analysis								
Aluminum	ug/l	NC	268	<200	<200	<200	<200	<200
Arsenic	ug/l	0.017	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Calcium	ug/l	NT	27000	26500	26400	25800	26500	27200
Chromium	ug/l	92	23.6	<10	<10	<10	<10	<10
Copper	ug/l	1,300	<10	<10	<10	<10	<10	<10
Iron	ug/l	NC	468	102	100	<100	<100	<100
Lead	ug/l	5.00	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Magnesium	ug/l	NT	10200	9920	9890	9690	9950	10300
Manganese	ug/l	50(e)	20.5	<15	<15	<15	<15	<15
Sodium	ug/l	NT	89200	88000	87700	85500	88000	90500
Zinc	ug/l	7,400	<20	<20	<20	<20	<20	<20
General Chemistry								
Chloride	ug/l	250,000	102000	102000	103000	102000	102000	103000
Nitrogen, Nitrate	ug/l	NC	160 ^e	<110 ^e	<110 ^e	<110 ^e	<110 ^e	130 ^e
Nitrogen, Nitrate + Nitrite	ug/l	NC	160	<100	<100	<100	<100	130
Solids, Total Dissolved	ug/l	NC	278000	266000	296000	272000	290000	287000

- (a) Criteria as listed at (f)3 below as formula
- (b) Criteria as listed at (f)4 below as formula
- (d) Criterion is expressed as a function of the Water Effect Ratio (WER). For criterion in the table, WER equates to the default value of 1.0.
- (e) EPA Human Health for the Consumption of Water and Organism
- (fc) Criteria expressed as free cyanide (as CN)/L
- (h) Human health noncarcinogen
- (hc) Human health carcinogen
- (s) Dissolved criterion
- (T) Total recoverable criterion
- e Calculated as: (Nitrogen, Nitrate + Nitrite) (Nitrogen, Nitrite)
- NT Non Toxic
- NC No Criteria

BLUE: Compound Detected, No Criteria

YELLOW: Non Detect Result with MDL > Criteria

GREEN: Compound Detected, Non-Toxic

ORANGE: Exceedance, Result > Criteria

Table 7-2 Smith Creek and Pond Surface Water Human Health Former Hess Port Reading Terminal Site Port Reading, New Jersey

Lab Sample ID:		urface Water-	NJDEP Ecological	SW-13A	SW-13B	SW-13C	SW-14A	SW-14B	SW-14C	SW-15A	SW-15B	SW-15C	SW-16A	SW-16B	SW-16C	SW-17A	SW-17B	SW-17C
	F	Freshwater	Surface Water- Saline Human	JC83457-1	JC83457-2	JC83457-3	JC83457-4	JC83457-5	JC83457-6	JC83457-7	JC83457-8	JC83457-9	JC83501-3	JC83501-4	JC83501-5	JC83501-6	JC83501-7	JC83501-8
Date Sampled:		uman Health	Health Screening	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019
Matrix:		Screening Criterion	Criterion	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
MS Volatiles (SW846 8260C)																		
Methylcyclohexane u	ug/l	NC	NC	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)
Toluene u	ug/l	1300	15000	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)
m,p-Xylene u	ug/l	NC	NC	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)	ND (0.78)
o-Xylene u	ug/l	NC	NC	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
Xylene (total) u	ug/l	NC	NC	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
MS Semi-volatiles (SW846 827	70D)																	
Anthracene u	ug/l	8300	40000	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.21)
Benzo(a)anthracene u	ug/l	NC	NC	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.21)	ND (0.21)
Chrysene u	ug/l	4	18	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.18)
bis(2-Ethylhexyl)phthalate u	ug/l	1.2	2.2	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.7)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.7)	ND (1.6)	ND (1.7)
Dibenzofuran u	ug/l	NC	NC	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)
Fluoranthene u	ug/l	130	140	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.17)	ND (0.16)	ND (0.17)	ND (0.17)	ND (0.17)
Phenanthrene u	ug/l	NC	NC	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.18)
Pyrene u	ug/l	830	4,000	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)
Metals Analysis			110		200	200	000	200	1 000	1 004	050	004		1 000	1 000	200	-000	200
	ug/l	NC	NC	<200	200	<200	<200	226	298	201	256	301	<200	<200	<200	<200	<200	<200
	ug/l	NT 1300	NT NC	241000	242000	246000	233000 <10	244000	248000	244000	243000	241000	229000	233000	233000	231000	223000 <10	231000
	ug/l ug/l	NC	NC NC	<10 380	<10 333	<10 329	359	<10 365	<10 479	<10 357	<10 355	<10 437	<10 335	<10 370	<10 333	<10 539	401	<10 363
	ug/l	NT	NT NT	719000	722000	742000	697000	738000	749000	737000	734000	726000	677000	692000	691000	685000	660000	685000
<u> </u>	ug/l	NC	100	68.5	68.2	66.3	67.8	60.7	61.8	66.9	62.8	60.9	66.4	67.2	66.8	74.4	69	68.7
	ug/l	NC	NC	219000	220000	225000	212000	224000	228000	222000	223000	221000	207000	211000	212000	209000	202000	210000
	ug/l	170	40,000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	ug/l	NT	NT	5980000	6040000	6270000	5690000	6000000	5980000	5860000	5980000	5850000	5620000	5580000	5420000	5350000	5390000	5220000
General Chemistry																		
Alkalinity, Total as CaCO3 m	ng/l	NC	NC	103 ^k	97.8 ^k	97.8 ^k	104 ^k	104 ^k	91.5 ^k	98.8 ^k	96.7 ^k	97.2 ^k	102 ^k	99.8 ^k	59.8 ^k	97.8 ^k	103 ^k	105 ^k
Chloride ² m	ng/l	250000	NC	9960 ^r	10100 ^r	10300 ^r	9810 ^r	10400 ^r	10400 ^r	9920 ^r	10200 ^r	10300 ^r	9310 ^r	9230 ^r	9260 ^r	9220 ^r	9260 ^r	9300 ^r
Hardness, Total as CaCO3 m	ng/l	NC	NC	3300	3950	3650	3380	3500	3630	3880	3630	3450	3290	3380	3280	3150	3350	3080
Nitrogen, Ammonia m	mg/l	NC	NC	0.34	0.33	0.33	0.33	0.33	0.34	0.32	0.33	0.34	0.44	0.37	0.36	0.34	0.32	0.34
Nitrogen, Nitrate m	ng/l	NC	NC	0.32 ^m	0.45 ^m	0.39 ^m	0.60 ^m	0.54 ^m	0.51 ^m	0.31 ^m	0.31 ^m	0.61 ^m	0.40 ^m	0.35 ^m	0.34 ^m	0.33 ^m	0.35 ^m	0.36 ^m
Nitrogen, Nitrate + Nitrite m	ng/l	NC	NC	0.35	0.48	0.42	0.63	0.57	0.54	0.34	0.34	0.64	0.42	0.38	0.37	0.35	0.37	0.39
Nitrogen, Nitrite m	ng/l	NC	NC	0.03	0.031	0.028	0.029	0.031	0.029	0.029	0.03	0.027	0.017	0.032	0.028	0.019	0.02	0.035
Solids, Total Dissolved m	mg/l	NC	NC	17800	19300	18600	18200	18500	19100	18400	19100	18600	17200	18400	17300	17400	17400	17400

NC: No Criteria

BLUE: Compound Detected, No Criteria

GREEN: Compound Detected, Non-Toxic

ORANGE: Exceedance, Result > Criteria

Table 7-2 Smith Creek and Pond Surface Water Human Health Former Hess Port Reading Terminal Site Port Reading, New Jersey

Client Sample ID:		NJDEP Ecological		SW-18A	SW-18B	SW-18C	SW-19A	SW-19B	SW-19C	SW-20A	SW-20B	SW-20C	SW-21A	SW-21B	SW-21C	SW-22A	SW-22B	SW-22C
Lab Sample ID:		Surface Water- Freshwater	Surface Water-	JC83501-9	JC83501-10	JC83501-11	JC83595-3	JC83595-4	JC83595-5	JC83595-6	JC83595-7	JC83595-8	JC83595-9	JC83595-10	JC83595-11	JC83841-2	JC83841-3	JC83841-4
Date Sampled:		Human Health Screening	Saline Human Health Screening Criterion	2/27/2019	2/27/2019	2/27/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	3/5/2019	3/5/2019	3/5/2019
Matrix:		Criterion	Citterion	Surface Water	Surface Water	Surface Water												
MS Volatiles (SW846 8260	C)																	
Methylcyclohexane	ug/l	NC	NC	ND (0.60)	ND (0.60)	ND (0.60)												
Toluene	ug/l	1300	15000	0.83 J	ND (0.53)	ND (0.53)	ND (0.53)											
m,p-Xylene	ug/l	NC	NC	ND (0.78)	ND (0.78)	ND (0.78)												
o-Xylene	ug/l	NC	NC	ND (0.59)	ND (0.59)	ND (0.59)												
Xylene (total)	ug/l	NC	NC	ND (0.59)	ND (0.59)	ND (0.59)												
				*								•						
MS Semi-volatiles (SW846	8270D)																	
Anthracene	ug/l	8300	40000	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.21)	0.65 J	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.20)
Benzo(a)anthracene	ug/l	NC	NC	ND (0.19)	ND (0.20)	ND (0.19)	ND (0.19)	ND (0.20)	ND (0.19)	ND (0.19)	ND (0.19)							
Chrysene	ug/l	4	18	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)								
bis(2-Ethylhexyl)phthalate	ug/l	1.2	2.2	ND (1.6)	ND (1.7)	ND (1.6)	ND (1.7)	ND (1.6)	ND (1.6)	ND (1.6)								
Dibenzofuran	ug/l	NC	NC	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.22)	0.33 J	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)
Fluoranthene	ug/l	130	140	ND (0.16)	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.16)							
Phenanthrene	ug/l	NC	NC	ND (0.17)	ND (0.18)	0.64 J	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)								
Pyrene	ug/l	830	4.000	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.21)						
			,															
Metals Analysis																		
Aluminum	ug/l	NC	NC	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	221	239
Calcium ¹	ug/l	NT	NT	231000	237000	227000	231000	223000	225000	224000	223000	224000	229000	222000	226000	235000	229000	232000°
Copper		1300	NC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100 i	<10
Iron		NC	NC	517	461	379	345	344	329	364	367	346	427	379	375	<1000 ^j	<1000 ^j	<1000 ^j
Magnesium ¹	ug/l	NT	NT	684000	700000	673000	689000	664000	671000	667000	664000	666000	681000	661000	672000	694000	679000	684000
Manganese	ug/l	NC	100	72.7	70.8	69.4	63.7	63.1	63	64.6	64	64.2	66.9	64.3	64.7	61.3	61.6	63.5
Potassium	ug/l	NC	NC	209000	214000	206000	199000	209000	212000	210000	209000	210000	214000	208000	212000	223000	220000	224000
Silver	ug/l	170	40,000	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sodium	ug/l	NT	NT	5490000	5270000	5460000	5430000	5280000	5230000	5110000	5330000	5300000	5480000	5260000	5510000	5360000	5260000	5330000
General Chemistry			_															
Alkalinity, Total as CaCO3	mg/l	NC	NC	90.5 ^k	93.6 ^k	92.0 ^k	96.7 ^k	95.7 ^k	97.2 ^k	119 ^k	108 ^k	105 ^k	101 ^k	104 ^k	105 ^k	102 ^k	102 ^k	101 ^k
Chloride ²	mg/l	250000	NC	9340 ^r	9310 ^r	9370 ^r	9180 ^r	9230 ^r	9500 ^r	9140 ^r	9170 ^r	9200 ^r	9160 ^r	9420 ^r	9300 ^r	9240 ^r	9400 ^r	9180 ^r
Hardness, Total as CaCO3	mg/l	NC	NC	3150	3200	3330	3230	3100	3250	3200	3130	3250	3180	3230	3380	3250	3200	3200
Nitrogen, Ammonia	mg/l	NC	NC	0.33	0.33	0.34	0.32	0.33	0.32	0.31	0.34	0.32	0.32	0.34	0.32	0.38	0.4	<0.20
Nitrogen, Nitrate	mg/l	NC	NC	0.33 ^m	0.32 ^m	0.34 ^m	0.36 ^m	0.31 ^m	0.30 ^m	0.33 ^m	0.30 ^m	0.31 ^m	0.30 ^m	0.30 ^m	0.30 ^m	1.2 ^m	0.57 ^m	0.82 ^m
Nitrogen, Nitrate + Nitrite	mg/l	NC	NC	0.36	0.35	0.38	0.36	0.35	0.34	0.37	0.34	0.35	0.33	0.34	0.34	1.2	0.61	0.87
Nitrogen, Nitrite	mg/l	NC	NC	0.035	0.029	0.042	<0.010	0.037	0.037	0.037	0.036	0.037	0.032	0.043	0.038	0.045	0.042	0.047
Solids, Total Dissolved	mg/l	NC	NC	16700	17400	17300	16600	16000	15200	15800	16100	16200	1670	16800	16500	17000	17400	16900
1		NC:	No Criteria															

NC: BLUE: GREEN: Compound Detected, No Criteria
Compound Detected, Non-Toxic ORANGE: Exceedance, Result > Criteria

Table 7-2 Smith Creek and Pond Surface Water Human Health Former Hess Port Reading Terminal Site Port Reading, New Jersey

Client Sample ID:		NJDEP Ecological Surface Water-	NJDEP Ecological	SW-23A	SW-23B	SW-23C	SW-24A	SW-24B	SW-24C	SW-25A	SW-25B	SW-25C	SW-26A	SW-26B	SW-26C	SW-27A	SW-27B	SW-27C
Lab Sample ID:		Freshwater	Surface Water-	JC83841-5	JC83841-6	JC83841-7	JC83841-8	JC83841-9	JC83841-10	JC83090-1	JC83090-2	JC83090-3	JC83039-4	JC83039-5	JC83039-6	JC83039-1	JC83039-2	JC83039-3
Date Sampled:		Human Health Screening	Saline Human Health Screening	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	2/19/2019	2/19/2019	2/19/2019	2/18/2019	2/18/2019	2/18/2019	2/18/2019	2/18/2019	2/18/2019
Matrix:		Criterion	Criterion	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water						
MS Volatiles (SW846 82600	C)																	
Methylcyclohexane	ug/l	NC	NC	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.60)						
Toluene	ug/l	1300	15000	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)	ND (0.53)						
m,p-Xylene	ug/l	NC	NC	ND (0.78)	0.98 J	1.2	1.2	ND (0.78)										
o-Xylene	ug/l	NC	NC	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)						
Xylene (total)	ug/l	NC	NC	ND (0.59)	0.98 J	1.2	1.2	ND (0.59)										
•		•						•	•		•	•			•		•	•
MS Semi-volatiles (SW846	8270D)																	
Anthracene	ug/l	8300	40000	ND (0.20)	ND (0.21)	ND (0.20)	ND (0.20)	ND (0.21)	ND (0.21)									
Benzo(a)anthracene	ug/l	NC	NC	ND (0.19)	ND (0.20) ^g	ND (0.20) ^g	ND (0.20) ^g	0.20 JB	ND (0.21)	0.19 JB	0.26 JB	0.23 JB	0.25 JB					
Chrysene	ug/l	4	18	ND (0.17)	ND (0.17) ^g	ND (0.17) ^g	ND (0.18) ^g	ND (0.17)	ND (0.18)	ND (0.17)	0.17 JB	ND (0.17)	ND (0.18)					
bis(2-Ethylhexyl)phthalate	ug/l	1.2	2.2	ND (1.6)	ND (1.6)	ND (1.7)	ND (1.6) ^a	ND (1.7) ^a	ND (1.6) ^a	2.4 ^h	ND (1.6) ^a	ND (1.7) ^a						
Dibenzofuran	ug/l	NC	NC	ND (0.21)	ND (0.22)	ND (0.21)	ND (0.21)	ND (0.22)	ND (0.22)									
Fluoranthene	ug/l	130	140	ND (0.16)	ND (0.17) ^g	ND (0.17) ^g	ND (0.17) ^g	ND (0.17)	ND (0.17)	ND (0.16)	0.22 JB	0.18 JB	ND (0.17)					
Phenanthrene	ug/l	NC	NC	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)						
Pyrene	ug/l	830	4,000	ND (0.21)	ND (0.22) ^g	ND (0.21) ^g	ND (0.22) ^g	ND (0.22) ^g	ND (0.22) ^g	ND (0.21) ^g	ND (0.21) ^g	ND (0.22) ^g	ND (0.22) ^g					
Metals Analysis																		
•	ug/l	NC	NC	<200	<200	<200	<200	<200	<200	<200	364	<200	<200	<200	210	<200	246	224
Calcium ¹	ug/l	NT	NT	239000	239000	232000	246000	242000	240000	275000	247000	245000	247000	255000	254000	248000 ⁱ	249000	254000
Copper	ug/l	1300	NC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iron	ug/l	NC	NC	<1000 ^j	447	905	524	277	327	375	266	376	345					
Magnesium ¹	ug/l	NT	NT	705000	710000	688000	731000	720000	713000	815000	734000	727000	753000	776000	771000	754000 ⁱ	757000	773000
Manganese	ug/l	NC	100	61.4	61.1	61.6	60.8	61.3	59.7	56.5	59.9	56.8	43.9	43.7	45.2	43.9	45	43.8
Potassium	ug/l	NC	NC	231000	232000	224000	239000	236000	234000	254000	229000	228000	227000	234000	233000	228000 i	229000	235000
Silver	ug/l	170	40,000	u	<10	<10	<10	<10	<10	<10	15.2	<10	<10	<10	<10	<10	<10	<10
Sodium	ug/l	NT	NT	5360000	5430000	5300000	5610000	5610000	5540000	5600000	5770000	5690000	5500000	5480000	5630000	5650000	6030000	5650000
General Chemistry																		
Alkalinity, Total as CaCO3	mg/l	NC	NC	103 ^k	102 ^k	102 ^k	104 ^k	101 ^k	103 ^k	108 ^k	106 ^k	107 ^k	101 ^k	101 ^k	101 ^k	101 ^k	99.8 ^k	99.8 ^k
Chloride ²	mg/l	250000	NC	9590 ^r	10800 ^r	10100 ^r	9660 ^r	10000 ^r	9450 ^r	10100	10200	10100	10400	10500	10600	10600	10600	10700
Hardness, Total as CaCO3	mg/l	NC	NC	3380	3380	3330	3350	3200	3380	3100	3650	3700	3600	3700	3700	3800	3990	3990
Nitrogen, Ammonia	mg/l	NC	NC	0.4	0.42	0.42	0.51	0.44	0.43	0.37	0.32	0.32	0.29	0.29	0.26	0.28	0.3	0.31
Nitrogen, Nitrate	mg/l	NC	NC	0.34 ^m	0.60 ^m	0.39 ^m	0.89 ^m	1.1 ^m	1.8 ^m	0.38 ^m	0.35 ^m	0.35 ^m	0.34 ^m	0.35 ^m	0.38 ^m	0.35 ^m	0.35 ^m	0.43 ^m
Nitrogen, Nitrate + Nitrite	mg/l	NC	NC	0.38	0.64	0.43	0.94	1.1	1.8	0.42	0.4	0.4	0.38	0.4	0.43	0.4	0.39	0.48
Nitrogen, Nitrite	mg/l	NC	NC	0.045	0.04	0.045	0.049	0.045	0.05	0.043	0.053	0.055	0.045	0.048	0.049	0.046	0.045	0.052
Solids, Total Dissolved	mg/l	NC	NC	18500	17600	17400	16800	17900	17200	17400	18300	18300	18400	18900	18300	19300	18000	19100
i ·		NC:	No Criteria															

NC: No Criteria

BLUE: Compound Detected, No Criteria

GREEN: Compound Detected, Non-Toxic

ORANGE: Exceedance, Result > Criteria

Table 7-2 Smith Creek and Pond Surface Water Human Health Former Hess Port Reading Terminal Site Port Reading, New Jersey

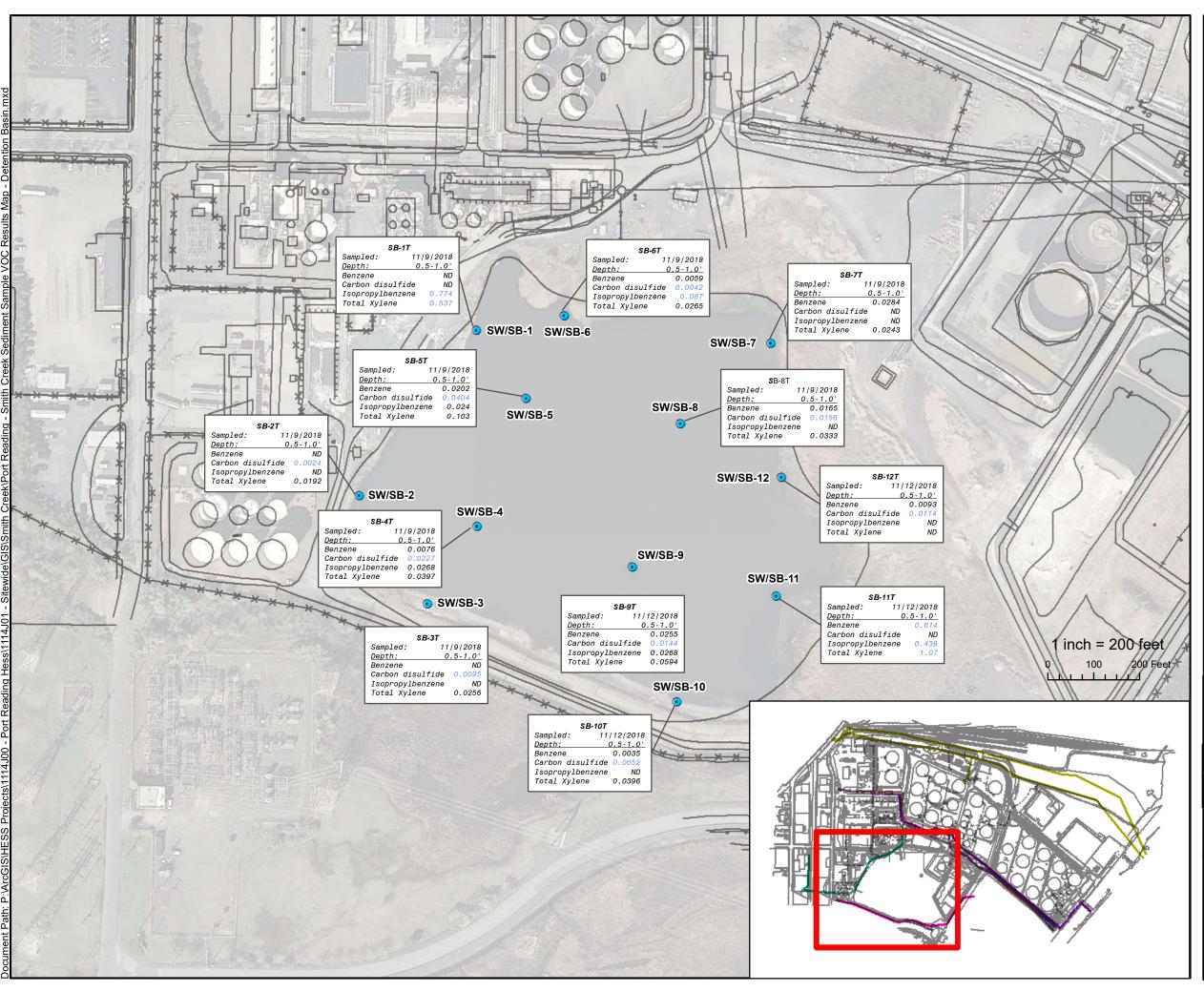
Client Sample ID:		Surface Water-	NJDEP Ecological Surface Water-	SW-28A	SW-28B	SW-28C	SW-29A	SW-29B	SW-29C	SW-30A	SW-30B	SW-30C	SW-31A	SW-31B	SW-31C	SW-32A	SW-32B	SW-32C
Lab Sample ID:		Freshwater Human Health	Saline Human	JC83090-4	JC83090-5	JC83090-6	JC83090-7	JC83090-8	JC83090-9	JC83090-10	JC83090-11	JC83090-12	JC83146-1	JC83146-2	JC83146-3	JC83146-4	JC83146-5	JC83146-6
Date Sampled:		Screening	Health Screening	2/19/2019	2/19/2019	2/19/2019	2/19/2019	2/19/2019	2/19/2019	2/19/2019	2/19/2019	2/19/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019
Matrix:		Criterion	Criterion	Surface Water														
MS Volatiles (SW846 8260C)	,		110		()	()	/		T (2 22)	/:		T (2 -2)	()	T (2 22)	T (2.22)	1 ()	1 ()	(2.22)
	ug/l	NC	NC 45000	ND (0.60)														
	ug/l	1300	15000	ND (0.53)	0.54 J	ND (0.53)	0.53 J	0.55 J										
	ug/l	NC NC	NC NC	0.93 J ND (0.59)	0.97 J ND (0.59)	1.1 ND (0.59)	ND (0.78) ND (0.59)	ND (0.78) ND (0.59)	1.1 ND (0.59)	ND (0.78) ND (0.59)	ND (0.78) ND (0.59)	ND (0.78) ND (0.59)	0.89 J ND (0.59)	0.91 J ND (0.59)	1 ND (0.59)	0.96 J ND (0.59)	1 ND (0.59)	1.1 ND (0.59)
<u> </u>	ug/l ug/l	NC NC	NC NC	0.93 J	0.97 J	1.1	ND (0.59)	ND (0.59)	1.1	ND (0.59)	ND (0.59)	ND (0.59)	0.89 J	0.91 J	ND (0.59)	0.96 J	1	1.1
Aylene (total)	ug/i	NC	NC	0.93 J	0.97 J	1.1	ND (0.59)	ND (0.59)	1.1	ND (0.59)	ND (0.59)	ND (0.59)	0.89 J	0.91 J	1	0.96 J	1	1.1
MS Semi-volatiles (SW846 8	8270D)																	
Anthracene	ug/l	8300	40000	ND (0.21)	ND (0.20)	ND (0.21)	ND (0.21)											
Benzo(a)anthracene	ug/l	NC	NC	ND (0.20) ^g	ND (0.19) ^g	ND (0.20) ^g	ND (0.20) ^g											
Chrysene	ug/l	4	18	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)				
bis(2-Ethylhexyl)phthalate	ug/l	1.2	2.2	ND (1.6)	ND (1.7)	ND (1.7)	ND (1.6)	ND (1.6)	ND (1.6)	ND (1.7)	2.8	ND (1.6)	ND (1.6)	ND (1.7)				
Dibenzofuran	ug/l	NC	NC	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.22)											
Fluoranthene	ug/l	130	140	ND (0.17) ^g	ND (0.16) ^g	ND (0.17) ^g	ND (0.17) ^g											
Phenanthrene	ug/l	NC	NC	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.18)				
Pyrene	ug/l	830	4,000	ND (0.21) ^g	ND (0.22) ^g	ND (0.22) ^g	ND (0.22) ^g	ND (0.21) ^g	ND (0.22) ^g	ND (0.22) g	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.22)				
Metals Analysis		NC	NC	-000	1000	005	*000	-000	-000	*000	-000	1000	*000	*000	000	*000	1000	1000
	ug/l ug/l	NC NT	NC NT	<200 244000	<200 248000	295 242000	<200 257000	<200 250000	<200 259000	<200 264000	<200 238000	<200 245000	<200 229000	<200 237000	283 248000	<200 230000	<200 234000	<200 233000
	ug/I ug/I	1300	NC NC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	ug/I ug/I	NC	NC NC	468	482	721	495	474	458	520	545	443	441	405	667	417	394	348
	ug/l	NT	NT	723000	735000	715000	760000	741000	765000	778000	697000	721000	677000	700000	732000	678000	695000	692000
L	ug/l	NC	100	56.6	58	59	57.8	56.6	57	61.6	61.8	56	58	56.2	58.4	56.9	56.2	55.3
	ug/l	NC NC	NC NC	226000	231000	225000	237000	232000	240000	243000	219000	226000	168000	177000	185000	186000	190000	190000
	ug/l	170	40,000	21	<10	<10	14.5	20.8	<10	20.8	14.7	<10	<10	<10	<10	<10	<10	<10
	ug/l	NT	NT	6950000	5790000	5700000	5690000	6150000	5620000	5610000	5550000	5660000	5740000	5800000	5920000	5690000	5860000	5850000
	5				3.3333	0,0000						333333	0.1000	333333	332333			
General Chemistry																		
Alkalinity, Total as CaCO3	mg/l	NC	NC	107 ^k	102 ^k	107 ^k	104 ^k	106 ^k	104 ^k	111 ^k	107 ^k	111 ^k	118 ^k	114 ^k	109 ^k	115 ^k	110 ^k	109 ^k
Chloride ²	mg/l	250000	NC	10000	10000	10100	10000	10100	10000	9770	9760	9880	10000	10000	10100	9970	10100	10000
Hardness, Total as CaCO3	mg/l	NC	NC	3350	3500	3300	3650	3500	3500	136	3500	3550	3600	3750	3550	3500	3550	3750
Nitrogen, Ammonia	mg/l	NC	NC	0.29	0.29	0.31	0.25	0.27	0.31	0.25	0.24	0.23	0.27	0.27	0.34	0.28	0.32	0.33
Nitrogen, Nitrate	mg/l	NC	NC	0.35 ^m	0.42 ^m	0.58 ^m	0.37 ^m	0.54 ^m	0.38 ^m	0.31 ^m	0.36 ^m	0.38 ^m	0.36 ^m	0.40 ^m	0.87 ^m	0.43 ^m	0.45 ^m	0.40 ^m
Nitrogen, Nitrate + Nitrite	mg/l	NC	NC	0.38	0.43	0.62	0.41	0.58	0.42	0.35	0.38	0.41	0.41	0.45	0.92	0.46	0.48	0.42
	mg/l	NC	NC	0.035	0.012	0.043	0.045	0.036	0.04	0.037	0.017	0.027	0.047	0.05	0.052	0.032	0.026	0.018
Solids, Total Dissolved	mg/l	NC	NC	17500	17300	18300	18500	17600	18300	17300	18300	18900	19100	19100	18600	18900	19100	19500

Table 7-2 Smith Creek and Pond Surface Water Human Health Former Hess Port Reading Terminal Site Port Reading, New Jersey

Client Sample ID:		NJDEP Ecological	NJDEP Ecological	SW-33A	SW-33B	SW-33C	SW-34A	SW-34B	SW-34C	SW-35A	SW-35B	SW-35C
Lab Sample ID:		Surface Water- Freshwater	Surface Water-	JC83146-7	JC83146-8	JC83146-9	JC83146-12	JC83146-13	JC83146-14	JC83146-15	JC83146-16	JC83146-17
Date Sampled:		Human Health	Saline Human Health Screening	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019	2/20/2019
Matrix:		Screening Criterion	Criterion	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
MS Volatiles (SW846 8260)	C)											
Methylcyclohexane	ug/l	NC	NC	ND (0.60)	ND (0.60)	ND (0.60)	0.61 J	0.62 J	0.61 J	ND (0.60)	ND (0.60)	ND (0.60)
Toluene	ug/l	1300	15000	ND (0.53)	ND (0.53)	0.56 J	ND (0.53)					
m,p-Xylene	ug/l	NC	NC	0.93 J	0.95 J	1.1	0.93 J	0.96 J	0.94 J	0.85 J	0.90 J	0.95 J
o-Xylene	ug/l	NC	NC	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)	ND (0.59)
Xylene (total)	ug/l	NC	NC	0.93 J	0.95 J	1.1	0.93 J	0.96 J	0.94 J	0.85 J	0.90 J	0.95 J
MS Semi-volatiles (SW846		0000	40000		1	I	I ()			1 ()		I
Anthracene	ug/l	8300	40000	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.20)	ND (0.21)				
Benzo(a)anthracene	ug/l	NC	NC 10	ND (0.20) ^g	ND (0.20)	ND (0.20)	ND (0.20)	0.33 J	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Chrysene	ug/l	4	18	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.17)	0.26 J	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)
bis(2-Ethylhexyl)phthalate	ug/l	1.2	2.2	ND (1.6)	ND (1.7)	ND (1.7)	ND (1.6)	ND (1.7)	ND (1.6)	ND (1.6)	ND (1.7)	ND (1.6)
Dibenzofuran	ug/l	NC	NC	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.21)	ND (0.22)				
Fluoranthene	ug/l	130	140	ND (0.17) ^g	ND (0.17)	ND (0.17)	ND (0.17)	0.29 J	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.17)
Phenanthrene	ug/l	NC	NC	ND (0.17)	ND (0.18)	ND (0.18)	ND (0.17)	0.22 J	ND (0.17)	ND (0.17)	ND (0.18)	ND (0.17)
Pyrene	ug/l	830	4,000	ND (0.21)	ND (0.22)	ND (0.22)	ND (0.21)	0.44 J	ND (0.22)	ND (0.21)	ND (0.22)	ND (0.21)
Metals Analysis												
Aluminum	ug/l	NC	NC	<200	<200	<200	<200	<200	<200	<200	<200	1450
Calcium ¹	ug/l	NT	NT	235000	233000	231000	199000	197000	226000	197000	200000	222000
Copper	ug/l	1300	NC	<10	<10	<10	<10	<10	<10	<10	<10	17.9
Iron	ug/l	NC	NC	423	411	423	535	516	602	511	515	2980
Magnesium ¹	ug/l	NT	NT	696000	689000	684000	685000	633000	661000	642000	651000	648000
Manganese	ug/l	NC	100	57.7	57.5	55.1	63.5	60.2	62.8	61	61.4	94.3
Potassium	ug/l	NC	NC	190000	195000	189000	182000	181000	187000	182000	184000	187000
Silver	ug/l	170	40,000	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sodium	ug/l	NT	NT	5830000	5860000	5860000	5620000	4720000	4820000	4760000	4930000	5590000
General Chemistry												
Alkalinity, Total as CaCO3	mg/l	NC	NC	114 ^k	115 ^k	113 ^k	118 ^k	119 ^k	120 ^k	121 ^k	119 ^k	118 ^k
Chloride ²	mg/l	250000	NC	9970	9850	10000	9420	9470	9860	9390	9550	9620
Hardness, Total as CaCO3	mg/l	NC	NC	3450	3600	3380	3200	3130	3150	3200	3200	3280
Nitrogen, Ammonia	mg/l	NC	NC	0.22	<0.20	0.31	0.27	0.34	0.3	0.31	0.36	0.26
Nitrogen, Nitrate	mg/l	NC	NC	0.45 ^m	0.35 ^m	0.55 ^m	0.48 ^m	0.37 ^m	0.34 ^m	0.33 ^m	0.30 ^m	0.11 ^m
Nitrogen, Nitrate + Nitrite	mg/l	NC	NC	0.5	0.39	0.6	0.5	0.41	0.38	0.37	0.35	0.16
Nitrogen, Nitrite	mg/l	NC	NC	0.051	0.039	0.052	0.021	0.045	0.04	0.044	0.048	0.055
Solids, Total Dissolved	mg/l	NC	NC	19000	19000	18900	14400	16000	16300	15800	16500	16900

NC: No Criteria BLUE: GREEN: Compound Detected, No Criteria
Compound Detected, Non-Toxic

Exceedance, Result > Criteria





Sediment and Surface Water Location

NJDEP Ecological Sedir Water Screening ((ER-L or LEI	Criterion								
Benzene 0.34									
Carbon disulfide ¹	0.000851								
Isopropylbenzene ¹	0.086								
Xylene (total) 0.12									

NOTE:

1. All results were measured in mg/kg

AOC 12 DETENTION BASIN SEDIMENT RESULTS - VOCs

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

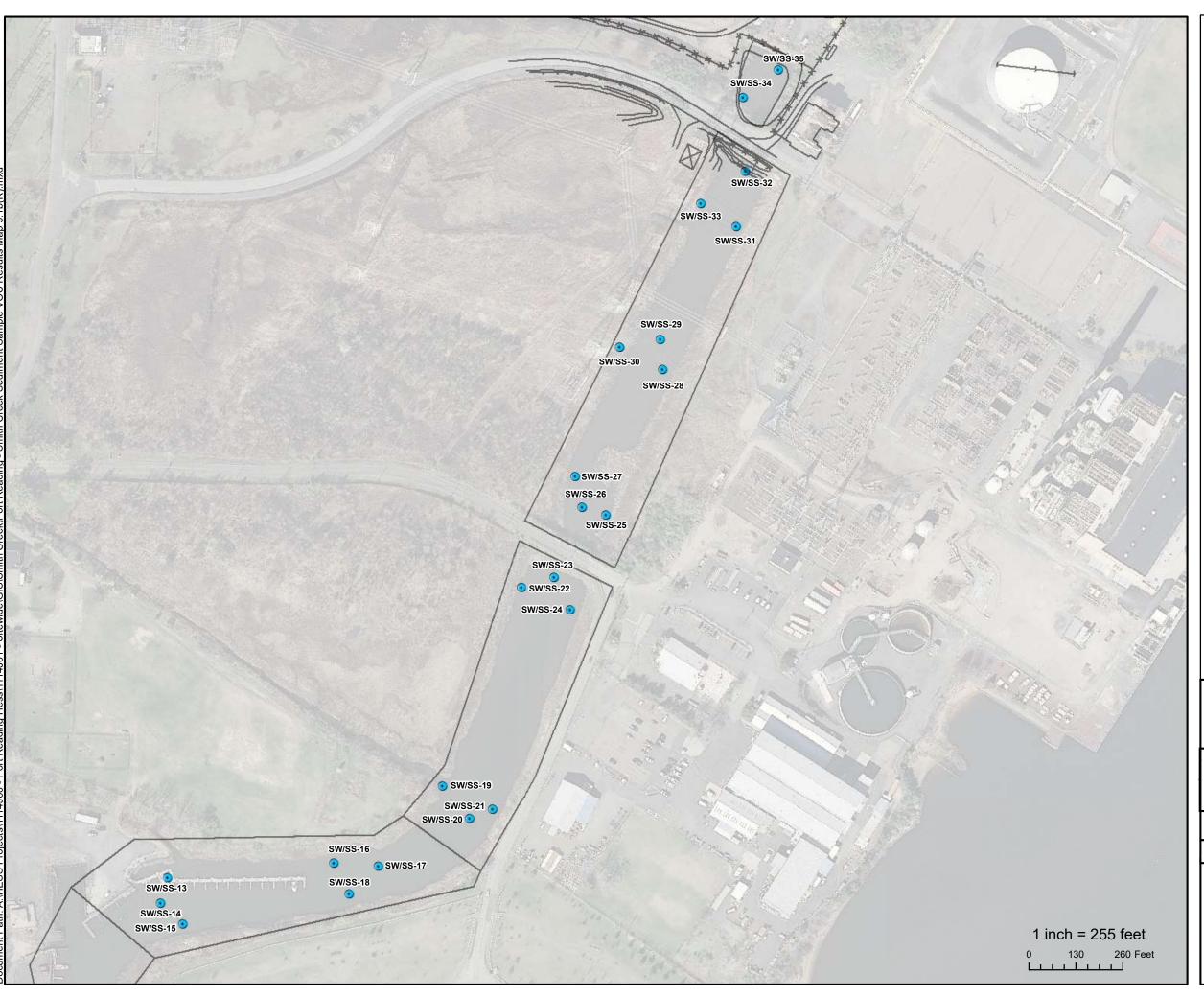
FIGURE: 7.2

Drawn By: **Date:** 01/17/2020



1625 Highway 71, Belmar, NJ 07719

T. 732.739.6444 | F. 732.739.0451





Sediment and Surface Water Location

NOTE:

1. All VOC analysis for sediment samples are under sediment - saline screening criterion

AOC 12 SMITH CREEK AND POND SEDIMENT RESULTS - VOCs

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 7.3

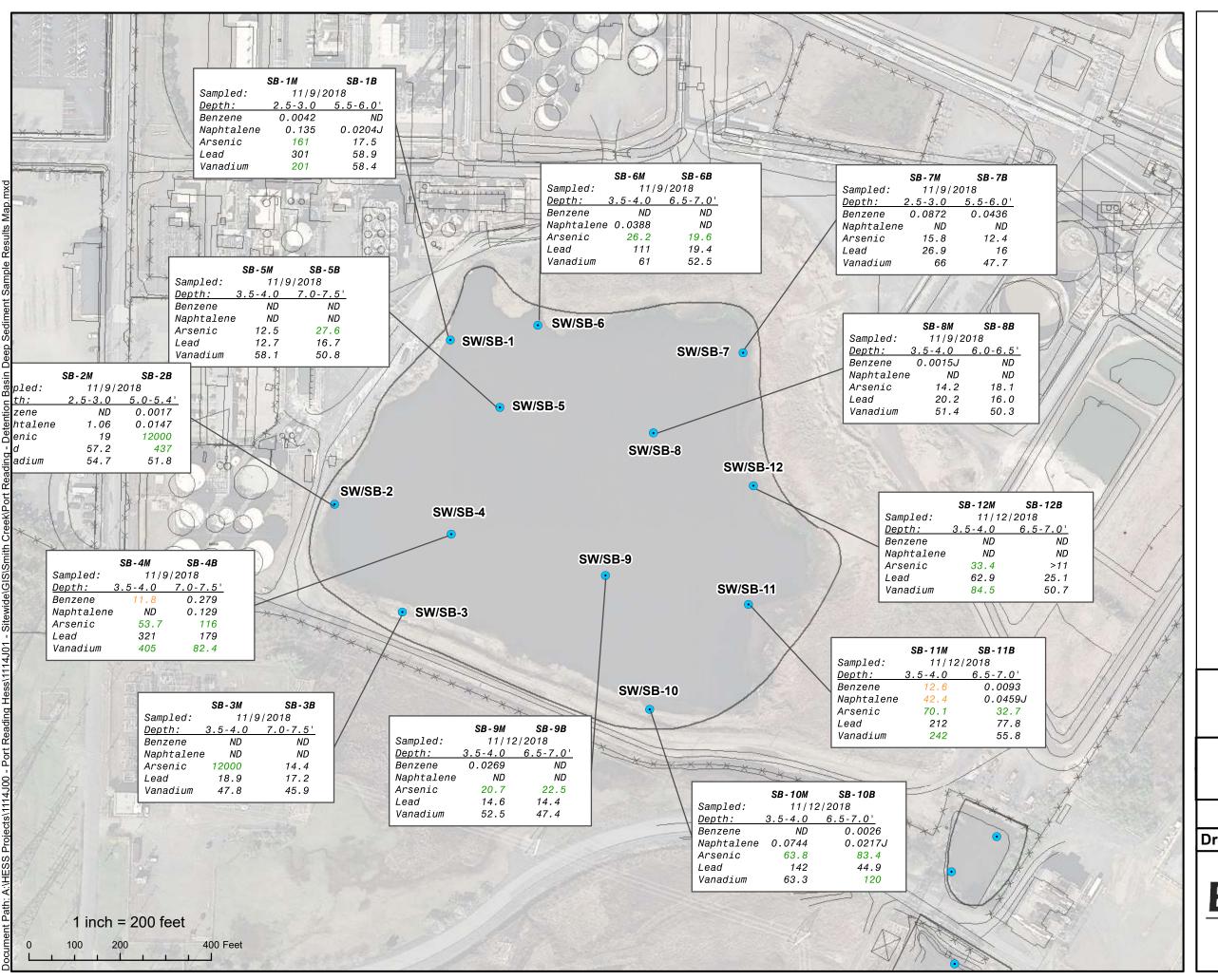
Drawn By:

KJ

Date: 01/17/2020



Environmental Engineering 1625 Highway 71, Belmar, NJ 07719 T. 732.739.6444 | F. 732.739.0451





 Sediment and Surface Water Location

	NJ Non-Residential Direct Contact Soil	NJ Residential Direct Contact Soil
Benzene	5	2
Naphthalene	17	6
Arsenic	19	19
Lead	800	400
Vanadium	1100	78

NOTE:

- 1. All results were measured in mg/kg
- 2. Orange: Exceedance, Over NRSRS Standard
- 3. Green: Exceedance, Over RSRS Standard

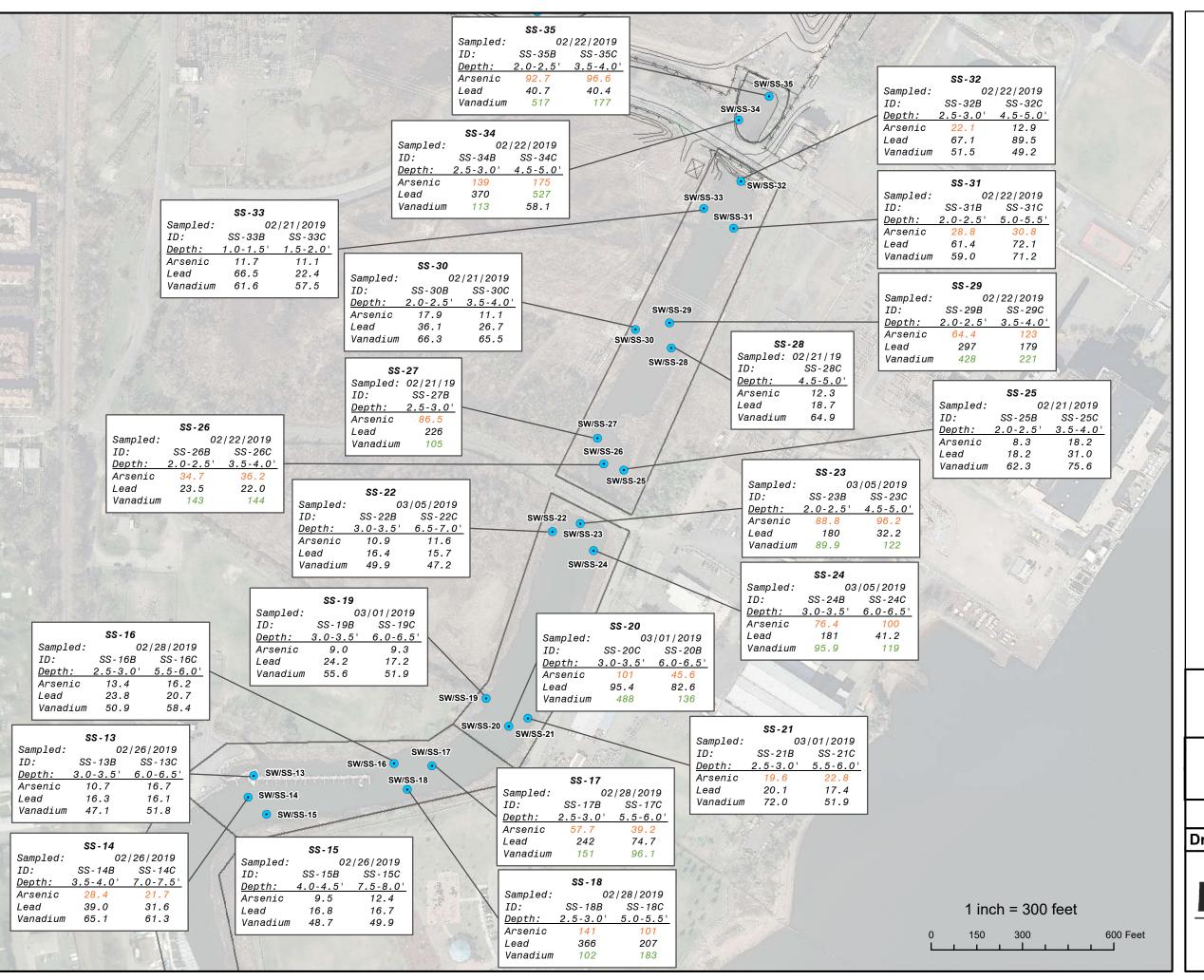
AOC 12 DETENTION BASIN DEEP SEDIMENT ANALYTICAL RESULTS

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 7.4

Drawn By: AE **Date:** 01/20/220







 Sediment and Surface Water Location

	NJDEP	NJDEP
	RSRS	NRSRS
Arsenic	19	19
Lead	800	400
Vanadium	1100	78

NOTE:

1. All results were measured in mg/kg

AOC 12 SMITH CREEK AND POND DEEP SEDIMENT RESULTS

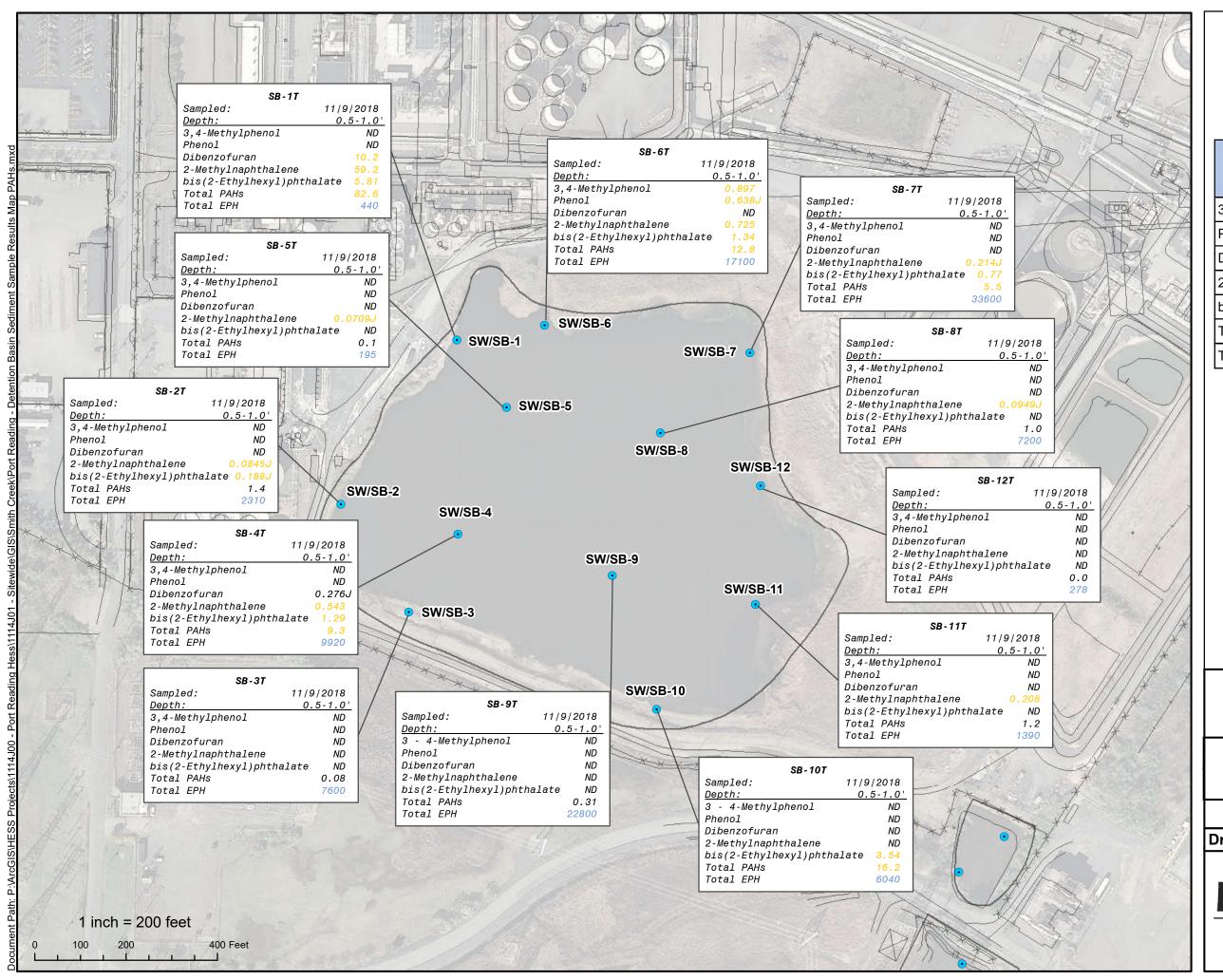
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 7.5

Drawn By: KJ **Date**: 01/20/220



Environmental Engineerin 1625 Highway 71, Belmar, NJ 07719 T. 732.739.6444 | F. 732.739.0451





 Sediment and Surface Water Location

NJDEP Ecological Sediment - FreshWater **Screening Criterion** (ER-L or LEL) 3,4-Methylphenol 0.67 Phenol 0.0491 0.415 Dibenzofuran 2-Methylnaphthalene 0.0202 bis(2-Ethylhexyl)phthalate 0.182 **Total PAHs** 4 NC Total EPH

NOT

- 1. All results were measured in mg/kg
- 2. NC: No Criteria
- 3. Blue: Compound Detected, No Criteria
- 4. Orange: Exceedance, Result > Criteria

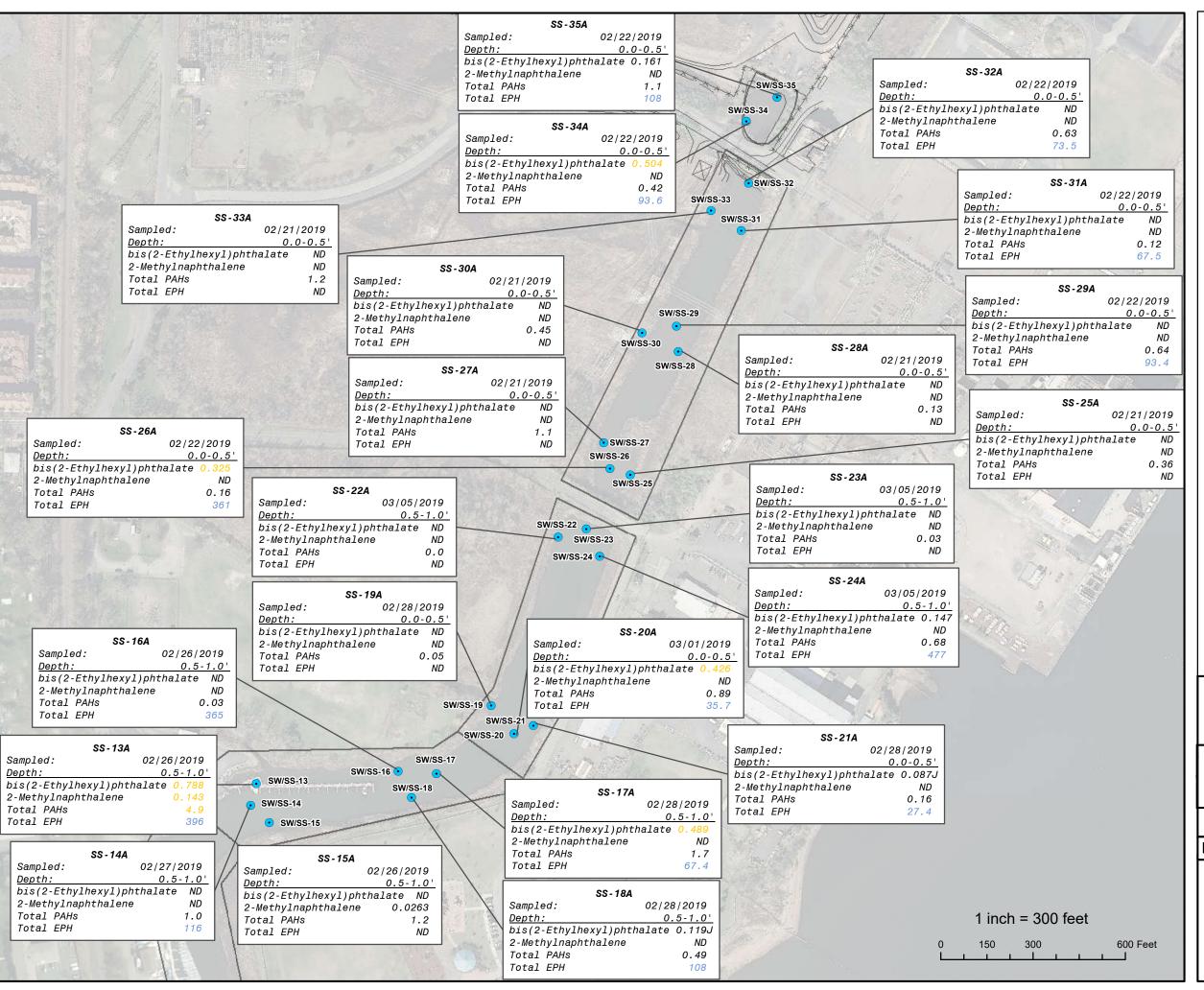
AOC 12 DETENTION BASIN SEDIMENT RESULTS - SVOC/EPH

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 7.6

Drawn By: KJ **Date:** 01/20/220







 Sediment and Surface Water Location

NJDEP Ecological Sedim Screening C (ER-L or L	riterion												
is(2-Ethylhexyl)phthalate 0.182													
2-Methylnaphthalene	0.07												
Total PAHs	4												
Total EPH	NC												

NOTE:

- 1. All results were measured in mg/kg
- 2. NC: No Criteria
- 3. Blue: Compound Detected, No Criteria
- 4. Orange: Exceedance, Result > Criteria

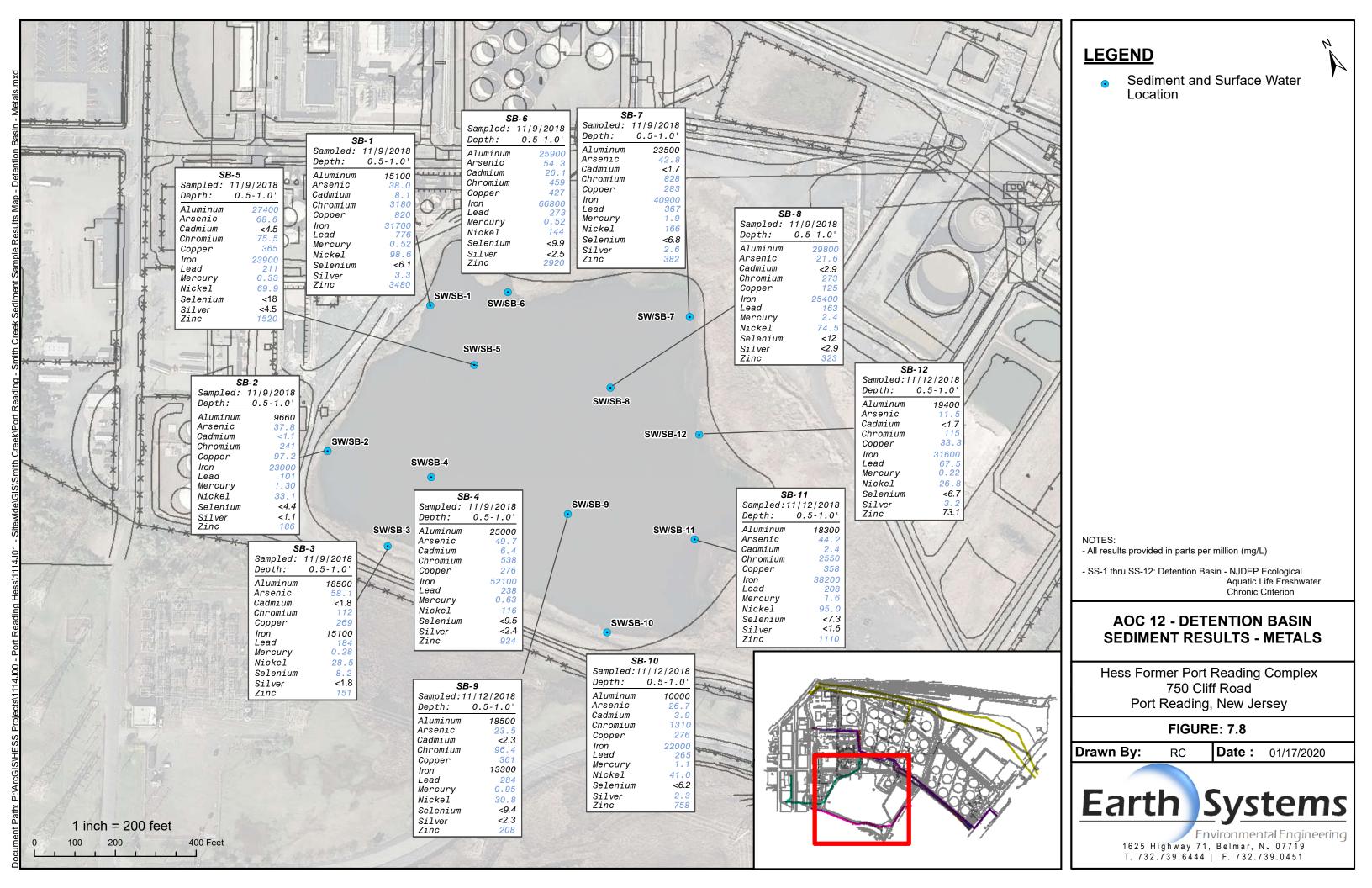
AOC 12 SMITH CREEK AND POND SEDIMENT RESULTS - SVOC/EPH

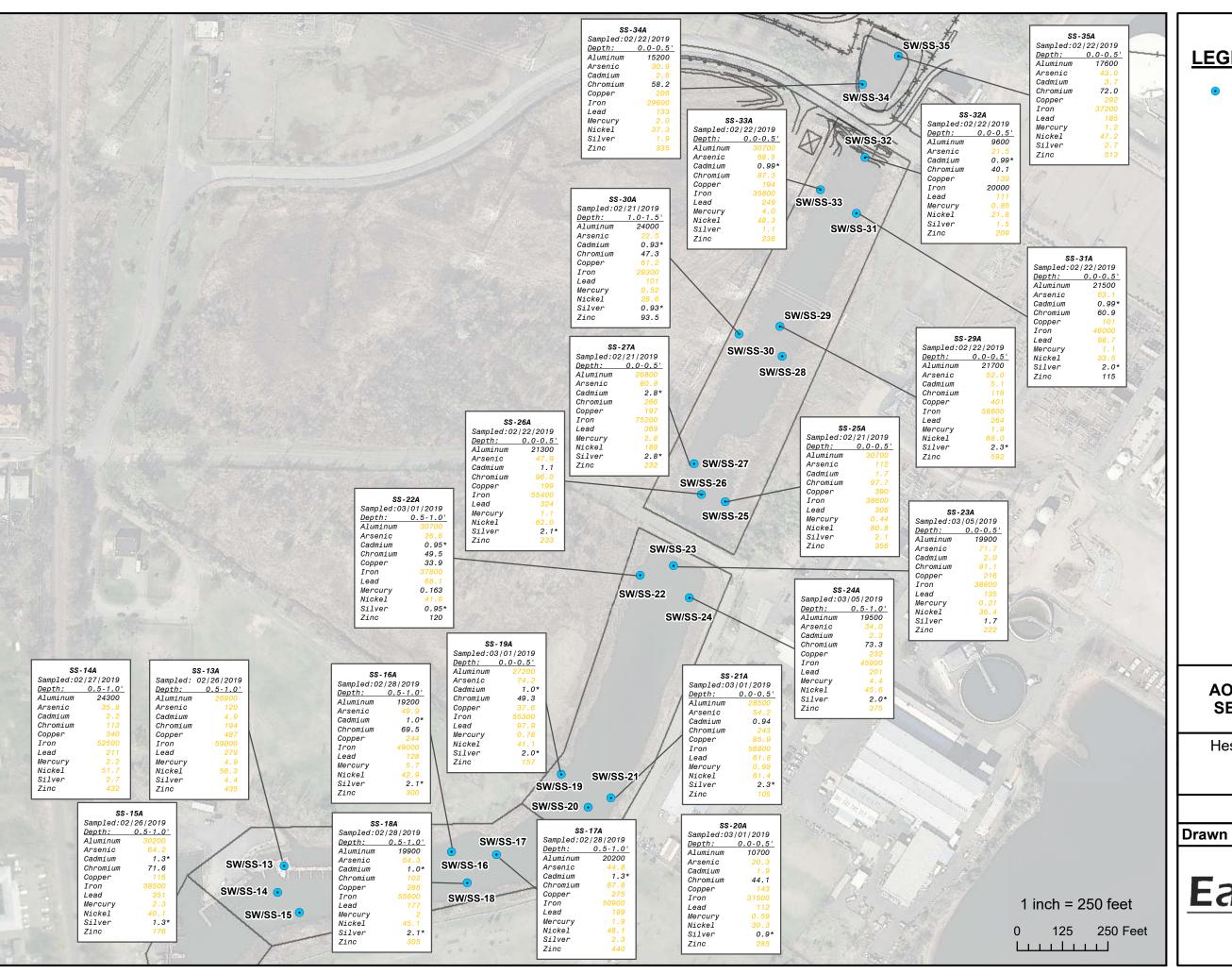
Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 7.7

Drawn By: KJ **Date:** 01/20/220







Sediment and Surface Water Location

N IDED Ecological Sediment

Saline Water Sc	reening Criterion or LEL)
Aluminum	25500
Arsenic	8.2
Cadmium	1.2
Chromium	81
Copper	34
Iron	20000
Lead	47
Mercury	0.15
Nickel	21
Silver	1
Zinc	150

- All results provided in parts per million (mg/kg)

AOC 12 - SMITH CREEK AND POND SEDIMENT RESULTS - METALS

Hess Former Port Reading Complex 750 Cliff Road Port Reading, New Jersey

FIGURE: 7.9

Drawn By: **Date:** 01/17/2020



Table 7.3 Detention Basin Sediment Screening - Ecological Evaluation Former Hess Port Reading Terminal Site Port Reading, NJ

Client Sample ID:	NJDEP Ecological		SB-1T	SB-2T	SB-3T	SB-4T	SB-5T	SB-6T	SB-7T	SB-8T	SB-9T	SB-10T	SB-11T	SB-12T
Lab Sample ID:	Sediment -		JC77657-1	JC77657-4	JC77657-7	JC77657-12	JC77657-15	JC77657-18	JC77657-21	JC77657-24	JC77814-3	JC77814-6	JC77814-9	JC77814-12
Date Sampled:	FreshWater Screening		11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018
Matrix:	Criterion (ER-L or LEL)		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	,													
MS Volatiles (SW846 8260C)														
,														
Acetone	NC	mg/kg	ND (1.7)	0.112	0.233	1.31	0.249	0.205	0.189	0.465	0.297	0.236	ND (0.78)	0.137
Benzene	0.142	mg/kg	ND (0.13)	ND (0.00097)	0.0064	0.0076	0.0202	0.0059	0.0284	0.0165	0.0255	0.0035	0.614	0.0093
Bromochloromethane	NC	mg/kg	ND (0.14)	ND (0.0011)	ND (0.0023)	ND (0.0034)	ND (0.0058)	ND (0.0016)	ND (0.0018)	ND (0.0038)	ND (0.0033)	ND (0.0020)	ND (0.067)	ND (0.0021)
Bromodichloromethane	NC	mg/kg	ND (0.15)	ND (0.0011)	ND (0.0023)	ND (0.0035)	ND (0.0060)	ND (0.0016)	ND (0.0019)	ND (0.0039)	ND (0.0034)	ND (0.0021)	ND (0.069)	ND (0.0022)
Bromoform	0.492	mg/kg	ND (0.13)	ND (0.0010)	ND (0.0021)	ND (0.0031)	ND (0.0054)	ND (0.0015)	ND (0.0017)	ND (0.0035)	ND (0.0031)	ND (0.0019)	ND (0.063)	ND (0.0020)
Bromomethane	0.00137	mg/kg	ND (0.33)	ND (0.0026)	ND (0.0053)	ND (0.0078)	ND (0.013)	ND (0.0037)	ND (0.0042)	ND (0.0088)	ND (0.0076)	ND (0.0046) ^e	ND (0.15)	ND (0.0049)
2-Butanone (MEK)	NC	mg/kg	ND (1.2)	0.0212 J	0.0493 J	0.114	ND (0.050)	0.0422	0.0360 J	0.102	0.0636 J	0.0493	ND (0.58)	0.0267 J
Carbon disulfide	0.000851	mg/kg	ND (0.31)	0.0024 J	0.0095 J	0.0227	0.0404	0.0042 J	ND (0.0040)	0.0156 J	0.0144 J	0.0052 J	ND (0.14)	0.0114
Carbon tetrachloride	1.45	mg/kg	ND (0.18)	ND (0.0014)	ND (0.0029)	ND (0.0043)	ND (0.0074)	ND (0.0020)	ND (0.0023)	ND (0.0048)	ND (0.0042)	ND (0.0026)	ND (0.086)	ND (0.0027)
Chlorobenzene	0.291	mg/kg	ND (0.12)	ND (0.00091)	ND (0.0019)	ND (0.0028)	ND (0.0048)	ND (0.0013)	ND (0.0015)	ND (0.0031)	ND (0.0027)	0.0030 J	0.0611 J	ND (0.0017)
Chloroethane	NC	mg/kg	ND (0.23)	ND (0.0018)	ND (0.0036)	ND (0.0054)	ND (0.0093)	ND (0.0025)	ND (0.0029)	ND (0.0060)	ND (0.0053)	ND (0.0032) a	ND (0.11)	ND (0.0033)
Chloroform	0.121 NC	mg/kg	ND (0.12)	ND (0.00096)	ND (0.0020)	ND (0.0029)	ND (0.0050)	ND (0.0014)	ND (0.0016)	ND (0.0033)	ND (0.0028)	ND (0.0017)	ND (0.058)	ND (0.0018)
Chloromethane Cyclohexane	NC NC	mg/kg	ND (0.65) 0.513 J	ND (0.0051) 0.0013 J	ND (0.010) ND (0.0021)	ND (0.015) 0.0556	ND (0.026) 0.0062 J	ND (0.0072) 0.0535	ND (0.0084) 0.0030 J	ND (0.017) ND (0.0036)	ND (0.015) 0.0546	ND (0.0091) ND (0.0019)	ND (0.30) 0.210 J	ND (0.0096) ND (0.0020)
1,2-Dibromo-3-chloropropane	NC NC	mg/kg mg/kg	0.513 J ND (0.28)	ND (0.0022)	ND (0.0021) ND (0.0044)	ND (0.0065)	ND (0.011)	ND (0.0031)	ND (0.0036)	ND (0.0036)	ND (0.0064)	ND (0.0019) ND (0.0039)	ND (0.13)	ND (0.0020) ND (0.0041)
Dibromochloromethane	NC NC	mg/kg	ND (0.28)	ND (0.0022)	ND (0.0044)	ND (0.0065)	ND (0.0011)	ND (0.0031)	ND (0.0036)	ND (0.0074)	ND (0.0064)	ND (0.0039)	ND (0.13)	ND (0.0041)
1.2-Dibromoethane	NC NC	mg/kg	ND (0.11)	ND (0.00084)	ND (0.0017)	ND (0.0025)	ND (0.0044)	ND (0.0012)	ND (0.0014)	ND (0.0030)	ND (0.0025)	ND (0.0015)	ND (0.053)	ND (0.0016)
1.2-Dichlorobenzene	0.294	mg/kg	ND (0.10)	ND (0.00079)	ND (0.0016)	ND (0.0024)	ND (0.0041)	ND (0.0011)	ND (0.0013)	ND (0.0027)	ND (0.0023)	ND (0.0014)	0.224	ND (0.0015)
1,3-Dichlorobenzene	1.315	mg/kg	ND (0.12)	ND (0.00093)	ND (0.0019)	ND (0.0028)	ND (0.0048)	ND (0.0013)	ND (0.0015)	ND (0.0032)	ND (0.0027)	ND (0.0017)	0.0919 J	ND (0.0017)
1,4-Dichlorobenzene	0.318	mg/kg	ND (0.11)	0.0010 J	ND (0.0018)	ND (0.0027)	ND (0.0046)	ND (0.0013)	ND (0.0015)	ND (0.0030)	ND (0.0026)	ND (0.0016)	0.185	ND (0.0017)
Dichlorodifluoromethane	NC	mg/kg	ND (0.21) a	ND (0.0016)	ND (0.0034)	ND (0.0050)	ND (0.0086)	ND (0.0023)	ND (0.0027)	ND (0.0056)	ND (0.0049)	ND (0.0030)	ND (0.099)	ND (0.0031)
1,1-Dichloroethane	NC	mg/kg	ND (0.13)	ND (0.00099)	ND (0.0020)	ND (0.0030)	ND (0.0052)	ND (0.0014)	ND (0.0016)	ND (0.0034)	ND (0.0029)	ND (0.0018)	ND (0.060)	ND (0.0019)
1,2-Dichloroethane	0.26	mg/kg	ND (0.16)	ND (0.0012)	ND (0.0025)	ND (0.0037)	ND (0.0063)	ND (0.0017)	ND (0.0020)	ND (0.0041)	ND (0.0036)	ND (0.0022)	ND (0.073)	ND (0.0023)
1,1-Dichloroethene	0.0194	mg/kg	ND (0.22)	ND (0.0017)	ND (0.0035)	ND (0.0051)	ND (0.0089)	ND (0.0024)	ND (0.0028)	ND (0.0058)	ND (0.0050)	ND (0.0031)	ND (0.10)	ND (0.0032)
cis-1,2-Dichloroethene	NC	mg/kg	ND (0.32)	ND (0.0025)	ND (0.0051)	ND (0.0075)	ND (0.013)	ND (0.0035)	0.005	ND (0.0084)	ND (0.0073)	ND (0.0045)	ND (0.15)	ND (0.0047)
trans-1,2-Dichloroethene	0.654	mg/kg	ND (0.22)	ND (0.0017)	ND (0.0035)	ND (0.0052)	ND (0.0090)	ND (0.0025)	ND (0.0028)	ND (0.0059)	ND (0.0051)	ND (0.0031)	ND (0.10)	ND (0.0033)
1,2-Dichloropropane	0.333	mg/kg	ND (0.14)	ND (0.0011)	ND (0.0021)	ND (0.0032)	ND (0.0055)	ND (0.0015)	ND (0.0017)	ND (0.0036)	ND (0.0031)	ND (0.0019)	ND (0.063)	ND (0.0020)
cis-1,3-Dichloropropene	NC	mg/kg	ND (0.12)	ND (0.00091)	ND (0.0019)	ND (0.0027)	ND (0.0047)	ND (0.0013)	ND (0.0015)	ND (0.0031)	ND (0.0027)	ND (0.0016)	ND (0.055)	ND (0.0017)
trans-1,3-Dichloropropene	NC	mg/kg	ND (0.11)	ND (0.00084)	ND (0.0017)	ND (0.0026)	ND (0.0044)	ND (0.0012)	ND (0.0014)	ND (0.0029)	ND (0.0025)	ND (0.0015)	ND (0.051)	ND (0.0016)
Ethylbenzene	0.175	mg/kg	ND (0.18)	ND (0.0014)	0.0074	ND (0.0043)	0.0326	0.0031 J	0.0063	0.0112	0.0272	0.0057	0.0934 J	ND (0.0027)
Freon 113	NC	mg/kg	ND (0.25)	ND (0.0020)	ND (0.0040)	ND (0.0059)	ND (0.010)	ND (0.0028)	ND (0.0033)	ND (0.0067)	ND (0.0058)	ND (0.0035)	ND (0.12)	ND (0.0037)
2-Hexanone	NC	mg/kg	ND (0.42)	ND (0.0033)	ND (0.0067)	ND (0.0099)	ND (0.017)	ND (0.0047)	ND (0.0054)	ND (0.011)	ND (0.0097)	ND (0.0059)	ND (0.20)	ND (0.0062)
Isopropylbenzene Methyl Acetate	0.086 NC	mg/kg mg/kg	0.774 0.534 J	ND (0.0018) ND (0.0036)	ND (0.0037) ND (0.0073)	0.0268 ND (0.011)	0.0240 J ND (0.019)	0.087 ND (0.0051)	ND (0.0030) ND (0.0059)	ND (0.0061) ND (0.012)	0.0268 ND (0.011)	ND (0.0032) ND (0.0065)	0.438 ND (0.22)	ND (0.0034) ND (0.0068)
Methylcyclohexane	NC NC		1.79	ND (0.0038)	ND (0.0073)	0.0244	0.0223 J	0.0527	ND (0.0039)	ND (0.012)	0.069	0.0034 J	0.859	ND (0.008)
Methyl Tert Butyl Ether	NC NC	mg/kg mg/kg	ND (0.12)	0.0015 J	ND (0.0037)	1.31	ND (0.0047)	0.0327	0.0027 J	ND (0.0082)	ND (0.0027)	ND (0.0016)	ND (0.055)	ND (0.0034)
4-Methyl-2-pentanone(MIBK)	NC NC	mg/kg	ND (0.12)	ND (0.0040)	ND (0.0013)	ND (0.012)	ND (0.0047)	ND (0.0058)	ND (0.0067)	ND (0.0031)	ND (0.012)	ND (0.0073)	ND (0.24)	ND (0.0077)
Methylene chloride	0.159	mg/kg	ND (0.83)	ND (0.0040)	ND (0.0082)	ND (0.012)	ND (0.021)	ND (0.0092)	ND (0.0067)	ND (0.014)	ND (0.012)	ND (0.012)	ND (0.24)	ND (0.0076)
Styrene	0.254	mg/kg	ND (0.19)	ND (0.0015)	ND (0.0030)	ND (0.0045)	ND (0.0078)	ND (0.0021)	ND (0.0025)	ND (0.0051)	ND (0.0044)	ND (0.0027)	ND (0.089)	ND (0.0028)
1,1,2,2-Tetrachloroethane	0.85	mg/kg	ND (0.13)	ND (0.0010)	ND (0.0021)	ND (0.0030)	ND (0.0053)	ND (0.0014)	ND (0.0017)	ND (0.0034)	ND (0.0030)	ND (0.0018)	ND (0.061)	ND (0.0019)
Tetrachloroethene	0.45	mg/kg	ND (0.15)	ND (0.0012)	ND (0.0024)	ND (0.0036)	ND (0.0062)	ND (0.0017)	ND (0.0020)	ND (0.0041)	ND (0.0035)	ND (0.0022)	ND (0.072)	ND (0.0023)
Toluene	1.22	mg/kg	ND (0.12)	ND (0.00097)	0.0377	0.0042 J	0.0098 J	0.0102	0.0296	0.0204	0.0305	0.0146	0.201	0.0221
1,2,3-Trichlorobenzene	NC	mg/kg	ND (0.33)	ND (0.0026)	ND (0.0053)	ND (0.0078)	ND (0.013)	ND (0.0037)	ND (0.0043)	ND (0.0088)	ND (0.0076)	ND (0.0047)	ND (0.16)	ND (0.0049)
1,2,4-Trichlorobenzene	5.062	mg/kg	ND (0.33)	ND (0.0026)	ND (0.0053)	ND (0.0078)	ND (0.013)	ND (0.0037)	ND (0.0043)	ND (0.0088)	ND (0.0076)	ND (0.0047)	0.209 J	ND (0.0049)
1,1,1-Trichloroethane	0.213	mg/kg	ND (0.14)	ND (0.0011)	ND (0.0022)	ND (0.0033)	ND (0.0057)	ND (0.0016)	ND (0.0018)	ND (0.0038)	ND (0.0033)	ND (0.0020)	ND (0.066)	ND (0.0021)
1,1,2-Trichloroethane	0.518	mg/kg	ND (0.11)	ND (0.00088)	ND (0.0018)	ND (0.0027)	ND (0.0046)	ND (0.0013)	ND (0.0015)	ND (0.0030)	ND (0.0026)	ND (0.0016)	ND (0.053)	ND (0.0017)
Trichloroethene	1.6	mg/kg	ND (0.25)	ND (0.0020)	ND (0.0040)	ND (0.0059)	ND (0.010)	ND (0.0028)	ND (0.0033)	ND (0.0067)	ND (0.0058)	ND (0.0035)	ND (0.12)	ND (0.0037)
Trichlorofluoromethane	NC	mg/kg	ND (0.23)	ND (0.0018)	ND (0.0036)	ND (0.0053)	ND (0.0092)	ND (0.0025)	ND (0.0029)	ND (0.0060)	ND (0.0052)	ND (0.0032)	ND (0.11)	ND (0.0033)
Vinyl chloride	0.202	mg/kg	ND (0.16) a	ND (0.0012)	ND (0.0025)	ND (0.0037)	ND (0.0063)	ND (0.0017)	0.0028 J	ND (0.0041)	ND (0.0036) ^f	ND (0.0022)	ND (0.073)	ND (0.0023) ^f
m,p-Xylene	NC	mg/kg	0.537	0.0133	0.0163	0.0174	0.0388	0.0105	0.0163	0.0208	0.0341	0.0234	0.509	ND (0.0036)
o-Xylene	NC	mg/kg	ND (0.19)	0.0059	0.0093	0.0223	0.0639	0.016	0.008	0.0125	0.0253	0.0162	0.564	ND (0.0028)
Xylene (total)	0.433	mg/kg	0.537	0.0192	0.0256	0.0397	0.103	0.0265	0.0243	0.0333	0.0594	0.0396	1.07	ND (0.0028)
MS Volatile TIC														
Total TIC. Volatile	NO		20.7			0.055	0.077	0.65	0.457	_	0.51	5511	00.11	_
	NC NC	mg/kg	89.6 J	0	0	9.006 J	0.373 J	3.39 J	0.407 J	0	9.51 J	5.74 J	92.4 J	0
Total Alkanes	NC	mg/kg	0	0	0	0.722 J	0	4.5 J	0.186 J	0	2.37 J	3.06 J	0	0

Client Sample ID:	NJDEP Ecological		SB-1T	SB-2T	SB-3T	SB-4T	SB-5T	SB-6T	SB-7T	SB-8T	SB-9T	SB-10T	SB-11T	SB-12T
Lab Sample ID: Date Sampled:	Sediment - FreshWater Screening		JC77657-1 11/9/2018	JC77657-4 11/9/2018	JC77657-7 11/9/2018	JC77657-12 11/9/2018	JC77657-15 11/9/2018	JC77657-18 11/9/2018	JC77657-21 11/9/2018	JC77657-24 11/9/2018	JC77814-3 11/12/2018	JC77814-6 11/12/2018	JC77814-9 11/12/2018	JC77814-12 11/12/2018
Matrix:	Criterion (ER-L or LEL)		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Semi-volatiles (SW846 8270D)														
2-Chlorophenol	0.0319	mg/kg	ND (0.47)	ND (0.070)	ND (0.060)	ND (0.15)	ND (0.15)	ND (0.20)	ND (0.11)	ND (0.19)	ND (0.14)	ND (0.51)	ND (0.059)	ND (0.057)
4-Chloro-3-methyl phenol	NC NC	mg/kg	ND (0.58)	ND (0.087)	ND (0.074)	ND (0.13)	ND (0.13)	ND (0.25)	ND (0.11)	ND (0.14)	ND (0.14)	ND (0.63)	ND (0.033)	ND (0.071)
2,4-Dichlorophenol	0.817	mg/kg	ND (0.81)	ND (0.12)	ND (0.10)	ND (0.26)	ND (0.26)	ND (0.35)	ND (0.19)	ND (0.33)	ND (0.25)	ND (0.88)	ND (0.10)	ND (0.099)
2,4-Dimethylphenol	0.304	mg/kg	ND (1.7)	ND (0.25)	ND (0.21)	ND (0.54)	ND (0.54)	ND (0.74)	ND (0.40)	ND (0.69)	ND (0.52)	ND (1.8)	ND (0.21)	ND (0.21)
2,4-Dinitrophenol 4.6-Dinitro-o-cresol	0.00621 NC	mg/kg mg/kg	ND (3.6) ND (1.0)	ND (0.53) ND (0.15)	ND (0.45) ND (0.13)	ND (1.1) ND (0.32)	ND (1.1) ND (0.32)	ND (1.6) ND (0.44)	ND (0.84) ND (0.24)	ND (1.5) ND (0.41)	ND (1.1) a ND (0.31)	ND (3.9) a ND (1.1)	ND (0.45) a ND (0.13)	ND (0.44) a ND (0.12)
2-Methylphenol	NC	mg/kg	ND (0.61)	ND (0.091)	ND (0.077)	ND (0.19)	ND (0.19)	ND (0.26)	ND (0.14)	ND (0.25)	ND (0.19)	ND (0.66)	ND (0.077)	ND (0.074)
3&4-Methylphenol	0.67	mg/kg	ND (0.78)	ND (0.12)	ND (0.099)	ND (0.25)	ND (0.25)	0.897	ND (0.18)	ND (0.32)	ND (0.24)	ND (0.85)	ND (0.099)	ND (0.095)
2-Nitrophenol	NC	mg/kg	ND (0.63)	ND (0.094)	ND (0.080)	ND (0.20)	ND (0.20)	ND (0.27)	ND (0.15)	ND (0.26)	ND (0.19)	ND (0.68)	ND (0.079)	ND (0.077)
4-Nitrophenol Pentachlorophenol	0.0133	mg/kg mg/kg	ND (2.5) ND (0.89)	ND (0.38) ND (0.13)	ND (0.32) ND (0.11)	ND (0.80) ND (0.28)	ND (0.81) ND (0.28)	ND (1.1) ND (0.39)	ND (0.60) ND (0.21)	ND (1.0) ND (0.36)	ND (0.78)	ND (2.8) ^f ND (0.97)	ND (0.32)	ND (0.31) ND (0.11) ^f
Phenol	0.0491	mg/kg	ND (0.50)	ND (0.074)	ND (0.063)	ND (0.16)	ND (0.16)	0.638 J	ND (0.12)	ND (0.20)	ND (0.15) ^f	ND (0.54)	ND (0.063) ^f	ND (0.060) ^f
2,3,4,6-Tetrachlorophenol	NC	mg/kg	ND (0.63)	ND (0.094)	ND (0.080)	ND (0.20) ^a	ND (0.20) a	ND (0.27) a	ND (0.15)	ND (0.26)	ND (0.19)	ND (0.68)	ND (0.080)	ND (0.077)
2,4,5-Trichlorophenol	NC	mg/kg	ND (0.71)	ND (0.11)	ND (0.090)	ND (0.23)	ND (0.23)	ND (0.31)	ND (0.17)	ND (0.29)	ND (0.22)	ND (0.77)	ND (0.090)	ND (0.087)
2,4,6-Trichlorophenol Acenaphthene	0.208	mg/kg mg/kg	ND (0.57) 11.4	ND (0.084) ND (0.049)	ND (0.072) ND (0.042)	ND (0.18) 0.382	ND (0.18) ND (0.10)	ND (0.25) 1.09	ND (0.13) ND (0.077)	ND (0.23) ND (0.13)	ND (0.17) ND (0.10)	ND (0.62) ND (0.36)	ND (0.072) 0.0634 J	ND (0.069) ND (0.040)
Acenaphthylene	0.00587	mg/kg	ND (0.48)	ND (0.072)	ND (0.061)	ND (0.15)	ND (0.15)	ND (0.21)	ND (0.11)	ND (0.20)	ND (0.15)	ND (0.53)	0.0684 J	ND (0.059)
Acetophenone	NC	mg/kg	ND (0.20)	ND (0.030)	ND (0.026)	ND (0.065)	ND (0.065)	ND (0.089)	ND (0.048)	ND (0.083)	ND (0.063)	ND (0.22)	ND (0.026)	ND (0.025)
Anthracene Atrazine	0.0572 NC	mg/kg mg/kg	ND (0.58)	0.100 J	ND (0.074) ND (0.052) a	0.588 ND (0.13)	ND (0.19) ND (0.13)	ND (0.25) ND (0.18)	ND (0.14) ND (0.096)	ND (0.24) ND (0.17)	ND (0.18) ND (0.13)	ND (0.63)	0.164 ND (0.051)	ND (0.071)
Benzo(a)anthracene	0.108	mg/kg mg/kg	ND (0.41) ^a	ND (0.061) a 0.0553 J	ND (0.052) - ND (0.034)	0.389	ND (0.13) ND (0.086)	0.632	ND (0.096) ND (0.063)	ND (0.17)	ND (0.13) ND (0.083)	ND (0.44) ^a	0.0553 J	ND (0.050) ND (0.033)
Benzo(a)pyrene	0.15	mg/kg	0.588 J	0.0874 J	ND (0.055)	0.501	ND (0.14)	0.390 J	0.513	ND (0.18)	ND (0.13)	0.768 J	ND (0.055)	ND (0.053)
Benzo(b)fluoranthene	10.4	mg/kg	0.955	0.14	ND (0.053)	0.962	ND (0.13)	0.557	0.752	0.302 J	0.137 J	1.03	ND (0.053)	ND (0.051)
Benzo(g,h,i)perylene Benzo(k)fluoranthene	0.17	mg/kg mg/kg	0.520 J ND (0.44)	0.143 ND (0.066)	ND (0.060) ND (0.056)	0.529 0.200 J	ND (0.15) ND (0.14)	0.387 J ND (0.19)	0.435 0.121 J	0.215 J ND (0.18)	ND (0.15) ND (0.14)	0.529 J ND (0.48) ^f	0.21 ND (0.056)	ND (0.058) ND (0.054)
4-Bromophenyl phenyl ether	NC	mg/kg	ND (0.44)	ND (0.066)	ND (0.098)	ND (0.12)	ND (0.14)	ND (0.19)	0.1213 ND (0.086)	ND (0.16)	ND (0.14)	ND (0.48)	ND (0.036)	ND (0.045)
Butyl benzyl phthalate	1.97	mg/kg	ND (0.23)	ND (0.035)	ND (0.029)	ND (0.073)	ND (0.074)	ND (0.10)	ND (0.055)	ND (0.094)	ND (0.071)	ND (0.25)	ND (0.029)	ND (0.028)
1,1'-Biphenyl	1.22	mg/kg	1.12 J	ND (0.019)	ND (0.017)	0.0901 J	0.0433 J	ND (0.057)	ND (0.031)	ND (0.053)	ND (0.040)	ND (0.14)	ND (0.016)	ND (0.016)
Benzaldehyde 2-Chloronaphthalene	NC 0.417	mg/kg mg/kg	ND (0.24) ND (0.23)	ND (0.035) ND (0.034)	ND (0.030) ND (0.029)	ND (0.075) ND (0.072)	ND (0.075) ND (0.072)	ND (0.10) ND (0.099)	ND (0.056) ND (0.053)	ND (0.096) ND (0.092)	ND (0.072) ND (0.070)	ND (0.26) ND (0.25)	ND (0.030) ND (0.029)	ND (0.029) ND (0.028)
4-Chloroaniline	NC	mg/kg	ND (0.34)	ND (0.051)	ND (0.043)	ND (0.11)	ND (0.11)	ND (0.15)	ND (0.081)	ND (0.14)	ND (0.11)	ND (0.27)	ND (0.043)	ND (0.042)
Carbazole	NC	mg/kg	ND (0.14)	ND (0.021)	ND (0.018)	ND (0.044)	ND (0.044)	ND (0.060)	ND (0.032)	ND (0.056)	ND (0.042)	ND (0.15)	ND (0.017)	ND (0.017)
Caprolactam	NC	mg/kg	ND (0.37) ^f	ND (0.056) ^f	ND (0.048) ^f	ND (0.12) ^f	ND (0.12) ^f	ND (0.16) ^f	ND (0.088)	ND (0.15)	ND (0.12)	ND (0.41)	ND (0.047)	ND (0.046)
Chrysene bis(2-Chloroethoxy)methane	0.34 NC	mg/kg mg/kg	2.64 ND (0.20)	0.419 ND (0.030)	0.0846 J ND (0.026)	1.6 ND (0.064)	ND (0.095) ND (0.065)	2.03 ND (0.089)	ND (0.070) ND (0.048)	ND (0.12) ND (0.083)	ND (0.092) ND (0.063)	8.01 ND (0.22)	0.106 J ND (0.026)	ND (0.036) ND (0.025)
bis(2-Chloroethyl)ether	3.52	mg/kg	ND (0.41)	ND (0.061)	ND (0.052)	ND (0.13)	ND (0.13)	ND (0.18)	ND (0.096)	ND (0.17)	ND (0.13)	ND (0.45)	ND (0.052)	ND (0.050)
2,2'-Oxybis(1-chloropropane)	NC	mg/kg	ND (0.34) ^f	ND (0.051) ^f	ND (0.043) ^f	ND (0.11) ^f	ND (0.11) ^f	ND (0.15) ^f	ND (0.080)	ND (0.14)	ND (0.10)	ND (0.37)	ND (0.043)	ND (0.042)
4-Chlorophenyl phenyl ether	NC 0.0144	mg/kg	ND (0.31)	ND (0.046)	ND (0.039)	ND (0.097) ND (0.093)	ND (0.098) ND (0.094)	ND (0.13) ND (0.13)	ND (0.073) ND (0.069)	ND (0.13) ND (0.12)	ND (0.095) ND (0.091)	ND (0.34) ND (0.32)	ND (0.039) ND (0.037)	ND (0.038) ND (0.036)
2,4-Dinitrotoluene 2,6-Dinitrotoluene	0.0144 NC	mg/kg mg/kg	ND (0.29) a ND (0.48)	ND (0.044) a ND (0.071)	ND (0.037) a ND (0.061)	ND (0.093) ND (0.15)	ND (0.094) ND (0.15)	ND (0.13) ND (0.21)	ND (0.069) ND (0.11)	ND (0.12) ND (0.19)	ND (0.091)	ND (0.32) ND (0.52)	ND (0.037)	ND (0.036) ND (0.058)
3,3'-Dichlorobenzidine	0.127	mg/kg	ND (0.79)	ND (0.12)	ND (0.10)	ND (0.25)	ND (0.25)	ND (0.35)	ND (0.19)	ND (0.32)	ND (0.24)	ND (0.86)	ND (0.10)	ND (0.097)
1,4-Dioxane	NC	mg/kg	ND (0.63)	ND (0.094)	ND (0.080)	ND (0.20) ^f	ND (0.20) ^f	ND (0.27) ^f	ND (0.15)	ND (0.26)	ND (0.19)	ND (0.68)	ND (0.079)	ND (0.077)
Dibenzo(a,h)anthracene Dibenzofuran	0.033	mg/kg mg/kg	ND (0.42) 10.2	ND (0.063) ND (0.058)	ND (0.053) ND (0.049)	0.193 J 0.276 J	ND (0.13) ND (0.12)	0.189 J ND (0.17)	0.206 J ND (0.091)	ND (0.17) ND (0.16)	ND (0.13) ND (0.12)	ND (0.46) ^f ND (0.42)	ND (0.053) ND (0.049)	ND (0.051) ND (0.047)
Di-n-butyl phthalate	1.114	mg/kg	ND (0.15)	ND (0.038)	ND (0.049)	ND (0.049)	ND (0.12)	ND (0.17)	ND (0.091)	ND (0.16)	ND (0.12)	ND (0.42)	ND (0.049)	ND (0.047)
Di-n-octyl phthalate	NC	mg/kg	ND (0.24)	ND (0.035)	ND (0.030)	ND (0.075)	ND (0.075)	ND (0.10)	ND (0.056)	ND (0.096)	ND (0.073)	ND (0.26)	ND (0.030)	ND (0.029)
Diethyl phthalate	0.295	mg/kg	ND (0.20)	ND (0.030)	ND (0.026)	ND (0.064)	ND (0.064)	ND (0.088)	ND (0.048)	ND (0.082)	ND (0.062)	ND (0.22)	ND (0.026)	ND (0.025)
Dimethyl phthalate bis(2-Ethylhexyl)phthalate	NC 0.182	mg/kg mg/kg	ND (0.17)	ND (0.025) 0.188 J ^f	ND (0.021) ND (0.028) ^f	ND (0.054) 1.29	ND (0.054) ND (0.071)	ND (0.074)	ND (0.040) 0.77	ND (0.069) ND (0.090)	ND (0.052) ND (0.068) ^a	ND (0.18) 3.54	ND (0.021) ND (0.028) ^a	ND (0.021) ND (0.027) a
Fluoranthene	0.182	mg/kg mg/kg	2.39	0.188 J 1 0.0818 J	ND (0.028)	0.522	ND (0.071) ND (0.14)	0.745	0.77 ND (0.10)	ND (0.090)	ND (0.068) 1 ND (0.13) 1	3.54 ND (0.46)	ND (0.028) ¹ ND (0.054) ¹	ND (0.027) 1 ND (0.052) 1
Fluorene	0.077	mg/kg	15.2	ND (0.065)	ND (0.055)	0.57	ND (0.14)	2.81	ND (0.10)	ND (0.18)	ND (0.13)	ND (0.47)	0.0923 J	ND (0.053)
Hexachlorobenzene	0.02	mg/kg	ND (0.24)	ND (0.036)	ND (0.031)	ND (0.076)	ND (0.077)	ND (0.10)	ND (0.057)	ND (0.098)	ND (0.074)	ND (0.26)	ND (0.030)	ND (0.029)
Hexachlorobutadiene Hexachlorocyclopentadiene	0.0265	mg/kg mg/kg	ND (0.38) ND (0.38)	ND (0.057) ND (0.056)	ND (0.049) ND (0.048)	ND (0.12) ND (0.12) ^a	ND (0.12) ND (0.12) ^a	ND (0.17) ND (0.16) ^a	ND (0.090) ND (0.089)	ND (0.16) ND (0.15)	ND (0.12) ^f ND (0.12)	ND (0.42) ^f ND (0.41)	ND (0.048) ^f ND (0.048)	ND (0.047) ^f ND (0.046)
Hexachloroethane	0.584	mg/kg	ND (0.47)	ND (0.070)	ND (0.060)	ND (0.15)	ND (0.15)	ND (0.20)	ND (0.11)	ND (0.19)	ND (0.14) ^f	ND (0.51) ^f	ND (0.060) ^f	ND (0.057) ¹
Indeno(1,2,3-cd)pyrene	0.2	mg/kg	ND (0.45) a	0.116 J ^g	ND (0.057) a	0.487	ND (0.14)	0.310 J	0.232	ND (0.18)	ND (0.14)	ND (0.49)	0.0962 J	ND (0.054)
Isophorone	0.432	mg/kg	ND (0.20)	ND (0.030)	ND (0.026)	ND (0.064)	ND (0.065)	ND (0.089)	ND (0.048)	ND (0.083)	ND (0.063)	ND (0.22)	ND (0.026)	ND (0.025)
2-Methylnaphthalene 2-Nitroaniline	0.0202 NC	mg/kg mg/kg	59.2 ND (0.22)	0.0845 J ND (0.033)	ND (0.027) ND (0.028)	0.543 ND (0.071)	0.0709 J ND (0.071)	0.725 ND (0.098)	0.214 J ND (0.053)	0.0949 J ND (0.091)	ND (0.066) ND (0.069)	ND (0.23) ND (0.24)	0.208 ND (0.028)	ND (0.026) ND (0.027)
3-Nitroaniline	NC	mg/kg	ND (0.24)	ND (0.035)	ND (0.030)	ND (0.075)	ND (0.076)	ND (0.10)	ND (0.056)	ND (0.097)	ND (0.073)	ND (0.26)	ND (0.030)	ND (0.029)
4-Nitroaniline	NC	mg/kg	ND (0.25)	ND (0.037)	ND (0.031)	ND (0.078)	ND (0.078)	ND (0.11)	ND (0.058)	ND (0.10)	ND (0.076)	ND (0.27)	ND (0.031)	ND (0.030)
Naphthalene Nitrobenzene	0.176 0.145	mg/kg mg/kg	6.41 ND (0.37)	0.0444 J ND (0.055)	ND (0.034) ND (0.047)	0.109 J ND (0.12)	0.0957 J ND (0.12)	0.316 J ND (0.16)	0.0894 J ND (0.086)	ND (0.11) ND (0.15)	ND (0.082) ND (0.11)	ND (0.29) ND (0.40) ^f	0.0806 J ND (0.046)	ND (0.033) ND (0.045)
N-Nitroso-di-n-propylamine	0.145 NC	mg/kg mg/kg	ND (0.37)	ND (0.055) ND (0.041)	ND (0.047) ND (0.035)	ND (0.12) ND (0.087)	ND (0.12) ND (0.088)	ND (0.16) ND (0.12)	ND (0.086)	ND (0.15)	ND (0.11) ND (0.084)	ND (0.40)	ND (0.046) ND (0.035)	ND (0.045)
N-Nitrosodiphenylamine	NC	mg/kg	ND (0.35)	ND (0.052)	ND (0.044)	ND (0.11)	ND (0.11)	ND (0.15)	ND (0.082)	ND (0.14)	ND (0.11)	ND (0.38)	ND (0.044)	ND (0.042)
Phenanthrene	0.204	mg/kg	34.4	0.0762 J	ND (0.041)	0.501	ND (0.10)	0.683	ND (0.075)	ND (0.13)	ND (0.098)	ND (0.35)	0.182	ND (0.039)
Pyrene 1,2,4,5-Tetrachlorobenzene	0.195 1.252	mg/kg mg/kg	4.46 0.782 J	0.18 ND (0.036)	ND (0.039) ND (0.031)	1.77 ND (0.076)	ND (0.097) ND (0.077)	2.7 ND (0.11)	3.13 ND (0.057)	0.451 ND (0.098)	0.171 J ND (0.074)	4.7 ND (0.26)	0.0623 J ND (0.031)	ND (0.037) ND (0.029)
Total PAHs	4	mg/kg	82.6	1.4	0.08	9.3	0.1	12.8	5.5	1	0.31	16.2	1.2	0
MS Semi-volatile TIC														
Total TIC, Semi-Volatile	NC	mg/kg	782 J	28.2 J	27.14 J	141.9 J	345.8 J	185.2 J	330.6 J	127.9 J	107.1 J	1087 J	20.48 J	1.1 J
Total Alkanes	NC NC	mg/kg	176 J	3.44 J	0.5 J	53.5 J	4.1 J	119.9 J	30.2 J	0	0		3.98 J	0
L										1	1			

Table 7.3 Detention Basin Sediment Screening - Ecological Evaluation Former Hess Port Reading Terminal Site Port Reading, NJ

Lab Sample ID: Date Sampled: Matrix:	Sediment - FreshWater Screening Criterion		JC77657-1 11/9/2018	JC77657-4 11/9/2018	JC77657-7 11/9/2018	JC77657-12 11/9/2018	JC77657-15	JC77657-18	JC77657-21	JC77657-24	JC77814-3	JC77814-6	JC77814-9	JC77814-12
	Criterion		11/9/2010											
Matrix:							11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018
	(ER-L or LEL)		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/LC Semi-volatiles (NJDEP I	EPH)													
C10-C12 Aromatics C12-C16 Aromatics	NC NC	mg/kg mg/kg	ND (7.7) ND (7.7)	ND (5.6) ND (5.6)	ND (9.4) ND (9.4)	ND (11) 62.8	ND (22) ND (22)	32.4	ND (46) 337	ND (15) ND (15)	ND (12) 326	ND (8.2) 130	ND (4.7) ND (4.7)	ND (8.8) ND (8.8)
C16-C21 Aromatics	NC	mg/kg	56.8	296	988	1200	ND (22)	2280	5830	995	2910	1110	188	ND (8.8)
C21-C36 Aromatics	NC	mg/kg	60.5	624	2050	1920	195	2360	5730	1970	3840	777	462	131
Total Aromatics	NC	mg/kg	117	920	3040	3180	195	4980	11900	2970	7070	2020	650	131
C9-C12 Aliphatics	NC	mg/kg	ND (7.7)	ND (5.6)	ND (9.4)	74.5	ND (22)	240	142	ND (15)	127	83.2	ND (4.7)	ND (8.8)
C12-C16 Aliphatics	NC NC	mg/kg	71.7	105	513	707	ND (22)	1340	2390	332	2250	703	97.9	ND (8.8)
C16-C21 Aliphatics C21-C40 Aliphatics	NC NC	mg/kg mg/kg	96.8 154	452 831	1460 2600	2290 3670	ND (22) ND (22)	3920 6650	7410 11800	1310 2590	4790 8560	1540 1700	285 360	31.1 116
Total Aliphatics	NC	mg/kg	322	1390	4580	6740	ND (22)	12200	21700	4240	15700	4020	743	147
Total EPH	NC	mg/kg	440	2310	7620	9920	195	17100	33600	7200	22800	6040	1390	278
						•	•	•		•				
Metals Analysis														
	05500		45400	0000	40500	05000	07400	05000	23500	20202	40500	40000	40000	40400
Aluminum	25500 NC	mg/kg mg/kg	15100 <12 h	9660	18500 <7.3	25000 <9.5	27400 <18	25900 <5.0	<6.8	29800 <12	18500 <9.4	10000	18300 <7.3 ^h	19400
Arsenic	6	mg/kg	38.0 h	37.8	58.1	49.7	68.6	54.3	42.8	21.6	23.5	26.7	44.2 h	11.5
Barium	NC	mg/kg	301	135	98.4	192	<180	180	210	<120	131	201	350	<67
Beryllium	NC	mg/kg	0.88	0.77	0.84	1.7	<1.8	2.7	1.3	1.7	0.94	0.84	1.9	1.5
Cadmium	0.6	mg/kg	8.1	<1.1	<1.8	6.4	<4.5	26.1	<1.7	<2.9	<2.3	3.9	2.4 ^h	<1.7
Calcium	NC	mg/kg	4960	1660	2330	41700	4730	10100	4850	3600	2600	2870	4640	1870
Chromium	26	mg/kg	3180 h	241	112	538	75.5	495	828	273	96.4	1310	2550 h	115 <17
Cobalt Copper	50 16	mg/kg mg/kg	44.1 820	<11 97.2	<18 269	<24 276	<45 365	40.4 427	17.3 283	<29 125	<23 361	<16 276	20.2 358 ^h	<17 33.3
Iron	20000	mg/kg	31700	23000	15100	52100	23900	66800	40900	25400	13300	22000	38200 h	31600
Lead	31	mg/kg	776	101	184	238	211	273 h	367	163	284	265	208 h	67.5
Magnesium	NC	mg/kg	4340	1890	4670	8640	6640	10800	6630	7670	4470	2520	3290	6680
Manganese	630	mg/kg	257	86.3	126	354	159	400 h	186	240	127	110	194 ^h	255
Mercury	0.174	mg/kg	0.52	1.3	0.28	0.63	0.33	0.52	1.9	2.4	0.95	1.1	1.6	0.22
Nickel	16	mg/kg	98.6	33.1	28.5	116	69.9	144	166	74.5	30.8	41	95	26.8
Potassium	NC	mg/kg	<3000	<2200	4260	<4800	<9100	3710	<3400	<5900	<4700	<3100	<1800	4060
Selenium Silver	0.5	mg/kg	<6.1 3.3	<4.4 <1.1	8.2 <1.8	<9.5 <2.4	<18 <4.5	<9.9 h	<6.8 2.6	<12 <2.9	<9.4 <2.3	<6.2 2.3	<7.3 ^h	<6.7 3.2
Sodium	NC	mg/kg mg/kg	4610	<2200	4950	<4800	<9100	4430	<3400	8030	<4700	<3100	<1.8	6580
Thallium	NC	mg/kg	<3.0	<2.2	<3.7	<4.8	<9.1	<5.0 h	<3.4	<5.9	<4.7	<3.1	<3.6 h	<3.4
Vanadium	NC	mg/kg	164	53.8	74.1	140	91.3	122	177	94.9	79.3	113	344 ^h	68
Zinc	120	mg/kg	3480 ^h	186	151	924	1520	2920 ^h	382	323	208	758	1110 ^h	73.1
General Chemistry														
3 Inch Sieve	NC	%	100	100	100	100	100	-	-	-	100	100	100	100
1.5 Inch Sieve	NC	%	100	100	100	100	100	-	÷	-	100	100	100	100
0.75 Inch Sieve	NC	%	100	100	100	100	100	-	•	-	100	100	100	100
0.375 Inch Sieve	NC	%	100	100	100	100	100	-	-	-	100	100	100	100
No.4 Sieve (4.75 mm)	NC NC	%	100	100	100	100	100	-	•	-	100	98.6	100	100
No.8 Sieve (2.36 mm) No.10 Sieve (2.00 mm)	NC NC	%	100	98.3 97.5	100	100	93.1 89.9	-	-	-	100	97.3 96.8	100	100
No.16 Sieve (1.18 mm)	NC NC	%	96.4	97.1	99.9	100	88.2	-	-	-	99.9	92.2	96.6	99.9
No.30 Sieve (0.60 mm)	NC	%	85.7	93.5	99	98.5	84.3	-	=	-	99.4	82.9	91.5	99.5
No.50 Sieve (0.30 mm)	NC	%	77.2	70.4	97.6	96.1	79.7	-	-	-	98.5	71.3	87.5	99.3
No.100 Sieve (0.15 mm)	NC	%	70.8	50.8	96.1	92.2	77.2	-		-	97.2	63.4	84.3	99
No.200 Sieve (0.075 mm)	NC	%	65.6	47.3	95.1	87.5	75.7	-	•	-	96.6	62.2	82.2	98.9
0.030 mm (Hydrometer)	NC	%	58	36	70	56	46	-	8	-	54	30	52	70
0.005 mm (Hydrometer)	NC NC	%	22	10	30	20	24	-	-	-	30	13.3	11	30
0.0015 mm (Hydrometer) % Gravel	NC NC	%	12	9	20	10	14	-	-	-	10	10	6	16.6
% Sand	NC NC	%	34.4	52.8	4.9	12.5	24.3	-	-	-	3.4	36.4	17.8	1.1
% Silt, Clay, Colloids	NC NC	%	65.6	47.3	95.1	87.5	75.7	-	-	-	96.6	62.2	82.2	98.9
Chloride	NC	mg/kg	1830	404	5540	1080	11600	3900	563	8170	2300	202	453	6030
Nitrogen, Ammonia	NC	mg/kg	185	66.5	180	229	289	192	148	183	162	78.6	124	154
Nitrogen, Nitrate	NC	mg/kg	<61 °	<44 °	<82 °	<92 °	<190 °	<53 °	<69 °	<120 °	<95 °	<62 °	<36 °	<70 °
Nitrogen, Nitrate + Nitrite	NC	mg/kg	<60	<44	<75	<91	<190	<52	<68	<120	<94	<61	<36	<69
Nitrogen, Nitrite	NC	mg/kg	0.81	0.61	<6.9	<0.91	<1.8	<0.51	0.67	<1.2	<0.91	<0.62	<0.37	<0.70
Solids, Percent Total Organic Carbon	NC NC	% ma/ka	34.2 95100	46.1 57400	26.3 127000	22.1	10.9	38.7 107000	29.3	16.7	21.8	31.6	54	28.5
Total Organic Carbon pH	NC NC	mg/kg su	95100 8.05	6.92	6.63	124000 ¹ 7.57	6.9	7.31	226000 ^j 6.88	253000 ^j 6.9	95000 ^j 7.04	7.36	7.12	83300 ^j 6.93
pr.	INC	au	0.00	0.92	0.03	1.31	0.8	1.31	0.00	0.8	7.04	1.30	1.12	0.93
			F							NC:				
			Footnotes:	V outeide of ac-	ol limite high	anle was ND					No Criteria	No Critoria		
			a Associated CC b This compoun	d in BS is outside	ol limits high, san in house QC limit + Nitrite) - (Nitrog	s bias high.				BLUE: GREEN: ORANGE:	No Criteria Compound Detected, Compound Detected, Exceedance, Result >	Non-Toxic		

Footnotes:
a Associated CCV outside of control limits high, sample was ND.
b This compound in Sis outside in house QC limits hiss high.
c Calculated as: (Nitrogen, Nitrate + Nitrate) - (Nitrogen, Nitrate)
d Sample received out of hoding time for pH analysis.
e This compound in Sis lostidise in house QC limits his high, if Associated CCV outside of control limits low.
g Associated CCV outside of control limits low.
h Elevated detection limit due to dilution required for high interfering in Multiple injections indicate possible sample non-homogeneity.
j Analysis done out of holding time.

Client Sample ID:	NJDEP Ecological		SS-13A	SS-14A	SS-15A	SS-16A	SS-17A	SS-18A	SS-19A	SS-20A	SS-21A	SS-22A	SS-23A	SS-24A	SS-25A	SS-26A	SS-27A	SS-28A	SS-29A	SS-30A	SS-31A	SS-32A	SS-33A	SS-34A	SS-35A
Lab Sample ID:	Sediment - Saline Water		JC83457-13	JC83501-12	JC83457-10	JC83595-18	JC83595-12	JC83595-15	JC83683-2	JC83683-5	JC83683-8	JC83841-18	JC83841-15	JC83841-12	JC83223-1	JC83313-1	JC83223-7	JC83223-4	JC83313-4	JC83223-12	JC83313-10	JC83313-7	JC83223-15	JC83313-13	JC83313-
Date Sampled:	Screening Criterion		2/26/2019	2/27/2019	2/26/2019	2/28/2019	2/28/2019	2/28/2019	3/1/2019	3/1/2019	3/1/2019	3/5/2019	3/5/2019	3/5/2019	2/21/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/22/2019	2/22/2019
Matrix:	(ER-L or LEL)		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
S Volatiles (SW846 8260C)																									
cetone	NC	mg/kg	0.14	0.247	0.0572	0.0978	0.0867	0.124	0.0323	0.0293	0.0597	0.0773	0.0617	0.0475	0.0741	0.0195 J	0.0338	0.0537	0.075	0.0396	0.0431	0.0204	0.0404	0.0317	0.0641
enzene	0.34	mg/kg	ND (0.0011)	ND (0.0022)	ND (0.0015)	ND (0.0012)	ND (0.0013)	ND (0.0011)	ND (0.00087)	ND (0.00075)	ND (0.00087)	ND (0.00094)	ND (0.00043)	ND (0.00091)	ND (0.0018)	ND (0.00087)	ND (0.00066)	ND (0.0012)	ND (0.0012)	ND (0.00081)	ND (0.00078)	ND (0.00059)	ND (0.00086)	ND (0.00054)	ND (0.0009
romochloromethane	NC	mg/kg	ND (0.0013)	ND (0.0025)	ND (0.0017)	ND (0.0014)	ND (0.0015)	ND (0.0013)	ND (0.00099)	ND (0.00086)	ND (0.00099)	ND (0.0011)	ND (0.00049)	ND (0.0010)	ND (0.0021)	ND (0.00099)	ND (0.00075)	ND (0.0013)	ND (0.0014)	ND (0.00092)	ND (0.00089)	ND (0.00067)	ND (0.00098)	ND (0.00061)	ND (0.001
omodichloromethane	NC NC	mg/kg	ND (0.0013)	ND (0.0026)	ND (0.0018)	ND (0.0014)	ND (0.0015)	ND (0.0013)	ND (0.0010)	ND (0.00089)	ND (0.0010)	ND (0.0011)	ND (0.00051)	ND (0.0011)	ND (0.0021)	ND (0.0010)	ND (0.00077)	ND (0.0014)	ND (0.0014)	ND (0.00095)	ND (0.00092)	ND (0.00069)	ND (0.0010)	ND (0.00063)	ND (0.001
omoform	NC NC	mg/kg mg/kg	ND (0.0012) ND (0.0030) ^b	ND (0.0023) ND (0.0058)	ND (0.0016) ND (0.0040)	ND (0.0013) ND (0.0032)	ND (0.0014) ND (0.0034)	ND (0.0012) ND (0.0030)	ND (0.00093) ND (0.0023) b	ND (0.00081) ND (0.0020) ^b	ND (0.00093) ND (0.0023) b	ND (0.0010) ND (0.0025)	ND (0.00046) ND (0.0011)	ND (0.00097) ND (0.0024)	ND (0.0019) ND (0.0048)	ND (0.00093) ND (0.0023)	ND (0.00070) ND (0.0017)	ND (0.0012)	ND (0.0013) ND (0.0032)	ND (0.00087) ND (0.0021)	ND (0.00083) ND (0.0021) ^a	ND (0.00063) ND (0.0015) ^a	ND (0.00092) ND (0.0023)	ND (0.00058) ND (0.0014) ^a	ND (0.000
romomethane Butanone (MFK)	NC NC	mg/kg mg/kg	0.0206 J	ND (0.0030)	ND (0.0040)	ND (0.0032)	ND (0.0034)	ND (0.0030)	ND (0.0023)	ND (0.0020)	ND (0.0023)	ND (0.0023)	ND (0.0011)	ND (0.0024)	ND (0.0048)	ND (0.0023)	ND (0.0017)	ND (0.0030)	ND (0.0032)	ND (0.0021)	ND (0.0021)	ND (0.0015)	ND (0.0025)	ND (0.0014) ND (0.0053)	ND (0.002
arbon disulfide	NC	ma/ka	0.0036 J	0.0115 J	0.0096	0.0072	0.0075	0.0064	0.0068	0.0075	0.0095	0.0039 J	ND (0.0011)	0.0063	0.0177	0.0031 J	0.0028 J	0.0157	0.0066	0.0165	0.0162	0.0018 J	0.012	0.0036	0.0091
arbon tetrachloride	NC	mg/kg	ND (0.0017)	ND (0.0032)	ND (0.0022)	ND (0.0018)	ND (0.0019)	ND (0.0016)	ND (0.0013)	ND (0.0011)	ND (0.0013)	ND (0.0014)	ND (0.00063)	ND (0.0013)	ND (0.0026)	ND (0.0013)	ND (0.00096)	ND (0.0017)	ND (0.0017)	ND (0.0012)	ND (0.0011)	ND (0.00086)	ND (0.0013)	ND (0.00079)	ND (0.001
nlorobenzene	0.291	mg/kg	ND (0.0011)	ND (0.0021)	ND (0.0014)	ND (0.0011)	ND (0.0012)	ND (0.0011)	ND (0.00082)	ND (0.00071)	ND (0.00081)	ND (0.00088)	ND (0.00040)	ND (0.00085)	ND (0.0017)	ND (0.00082)	ND (0.00062)	ND (0.0011)	ND (0.0011)	ND (0.00076)	ND (0.00073)	ND (0.00055)	ND (0.00081)	ND (0.00051)	ND (0.0008
nloroethane	NC	mg/kg	ND (0.0021)	ND (0.0040)	ND (0.0027)	ND (0.0022)	ND (0.0024)	ND (0.0021)	ND (0.0016)	ND (0.0014)	ND (0.0016)	ND (0.0017)	ND (0.00078)	ND (0.0017)	ND (0.0033)	ND (0.0016)	ND (0.0012)	ND (0.0021)	ND (0.0022)	ND (0.0015)	ND (0.0014) ^a	ND (0.0011) a	ND (0.0016)	ND (0.00098) a	ND (0.0017
nloroform	NC NC	mg/kg	ND (0.0011)	ND (0.0022)	ND (0.0015)	ND (0.0012)	ND (0.0013)	ND (0.0011)	ND (0.00086)	ND (0.00074)	ND (0.00085)	ND (0.00093)	ND (0.00042)	ND (0.00089)	ND (0.0018)	ND (0.00086)	ND (0.00065)	ND (0.0011)	ND (0.0012)	ND (0.00080)	ND (0.00077)	ND (0.00058)	ND (0.00085)	ND (0.00053)	ND (0.0009
nloromethane	NC NC	mg/kg mg/kg	ND (0.0060) ND (0.0012)	ND (0.011) ND (0.0024)	ND (0.0078) ND (0.0016)	ND (0.0063) ND (0.0013)	ND (0.0067) ND (0.0014)	ND (0.0059) ND (0.0012)	ND (0.0045) ND (0.00093)	ND (0.0039) ND (0.00081)	ND (0.0045) ND (0.00093)	ND (0.0049) ND (0.0010)	ND (0.0022) ND (0.00046)	ND (0.0047) ND (0.00098)	ND (0.0094) ND (0.0019)	ND (0.0045) ND (0.00093)	ND (0.0034) ND (0.00071)	ND (0.0060)	ND (0.0062) ND (0.0013)	ND (0.0042) ND (0.00087)	ND (0.0041) ^a ND (0.00084)	ND (0.0030) a ND (0.00063)	ND (0.0045) ND (0.00092)	ND (0.0028) a ND (0.00058)	ND (0.0048 ND (0.001
yclohexane 2-Dibromo-3-chloropropane	NC NC	mg/kg mg/kg	ND (0.0012)	ND (0.0024) ND (0.0049)	ND (0.0016)	ND (0.0013) ND (0.0027)	ND (0.0014) ND (0.0029)	ND (0.0012) ND (0.0025)	ND (0.00093) ND (0.0019)	ND (0.00081)	ND (0.00093)	ND (0.0010)	ND (0.00046)	ND (0.00098)	ND (0.0019)	ND (0.00093)	ND (0.00071) ND (0.0015)	ND (0.0012) ND (0.0026)	ND (0.0013)	ND (0.00087)	ND (0.00084)	ND (0.00063)	ND (0.00092)	ND (0.00058)	ND (0.001
bromochloromethane	NC	ma/ka	ND (0.0010)	ND (0.0020)	ND (0.0013)	ND (0.0011)	ND (0.0012)	ND (0.0010)	ND (0.00078)	ND (0.00068)	ND (0.00078)	ND (0.00084)	ND (0.00039)	ND (0.00081)	ND (0.0016)	ND (0.00078)	ND (0.00059)	ND (0.0020)	ND (0.0011)	ND (0.00073)	ND (0.00070)	ND (0.00053)	ND (0.00077)	ND (0.00048)	ND (0.0008
2-Dibromoethane	NC	mg/kg	ND (0.00099)	ND (0.0019)	ND (0.0013)	ND (0.0010)	ND (0.0011)	ND (0.00097)	ND (0.00075)	ND (0.00065)	ND (0.00075)	ND (0.00081)	ND (0.00037)	ND (0.00078)	ND (0.0016)	ND (0.00075)	ND (0.00057)	ND (0.00099)	ND (0.0010)	ND (0.00070)	ND (0.00067)	ND (0.00051)	ND (0.00074)	ND (0.00046)	ND (0.0008
2-Dichlorobenzene	0.294	mg/kg	ND (0.00093)	ND (0.0018)	ND (0.0012)	ND (0.00098)	ND (0.0010)	ND (0.00091)	ND (0.00070)	ND (0.00061)	ND (0.00070)	ND (0.00076)	ND (0.00035)	ND (0.00073)	ND (0.0015)	ND (0.00070)	ND (0.00053)	ND (0.00093)	ND (0.00097)	ND (0.00066)	ND (0.00063)	ND (0.00047)	ND (0.00069)	ND (0.00044)	ND (0.0007
3-Dichlorobenzene	1.315	mg/kg	ND (0.0011)	ND (0.0021)	ND (0.0014)	ND (0.0011)	ND (0.0012)	ND (0.0011)	ND (0.00083)	ND (0.00072)	ND (0.00082)	ND (0.00090)	ND (0.00041)	ND (0.00086)	ND (0.0017)	ND (0.00083)	ND (0.00063)	ND (0.0011)	ND (0.0011)	ND (0.00077)	ND (0.00074)	ND (0.00056)	ND (0.00082)	ND (0.00051)	ND (0.0008
4-Dichlorobenzene	0.318	mg/kg	0.0012 J	ND (0.0020)	ND (0.0014)	ND (0.0011)	ND (0.0012)	ND (0.0010)	ND (0.00079)	ND (0.00069)	ND (0.00079)	ND (0.00086)	ND (0.00039)	ND (0.00083)	ND (0.0016)	ND (0.00079)	ND (0.00060)	ND (0.0011)	ND (0.0011)	ND (0.00074)	ND (0.00071)	ND (0.00054)	ND (0.00078)	ND (0.00049)	ND (0.0008
chlorodifluoromethane	NC NC	mg/kg	ND (0.0019) ND (0.0012)	ND (0.0037) ND (0.0022)	ND (0.0025) ND (0.0015)	ND (0.0020) ND (0.0012)	ND (0.0022) ND (0.0013)	ND (0.0019) ND (0.0012)	ND (0.0015)	ND (0.0013) ND (0.00077)	ND (0.0015)	ND (0.0016) ^a ND (0.00096)	ND (0.00072) a ND (0.00044)	ND (0.0015) ^a ND (0.00092)	ND (0.0030) ND (0.0018)	ND (0.0015) ND (0.00089)	ND (0.0011) ND (0.00067)	ND (0.0019)	ND (0.0020) ND (0.0012)	ND (0.0014) ND (0.00083)	ND (0.0013) ND (0.00080)	ND (0.00099)	ND (0.0014) ND (0.00088)	ND (0.00091) ND (0.00055)	ND (0.001)
1-Dichloroethane 2-Dichloroethane	NC NC	mg/kg mg/ka	ND (0.0012)	ND (0.0022)	ND (0.0013)	ND (0.0012)	ND (0.0013)	ND (0.0012)	ND (0.00089)	ND (0.00077)	ND (0.0008)	ND (0.00090)	ND (0.00044)	ND (0.00092)	ND (0.0018)	ND (0.00089)	ND (0.00082)	ND (0.0012) ND (0.0014)	ND (0.0012)	ND (0.00063)	ND (0.00080)	ND (0.00000)	ND (0.00066)	ND (0.00053)	ND (0.0008
1-Dichloroethane	NC NC	ma/ka	ND (0.0020)	ND (0.0027)	ND (0.0026)	ND (0.0013)	ND (0.0023)	ND (0.0020)	ND (0.0011)	ND (0.0013)	ND (0.0011)	ND (0.0012)	ND (0.00075)	ND (0.0016)	ND (0.0022)	ND (0.0011)	ND (0.0011)	ND (0.0014)	ND (0.0013)	ND (0.0014)	ND (0.0014)	ND (0.0010)	ND (0.0011)	ND (0.00094)	ND (0.001)
s-1,2-Dichloroethene	NC	mg/kg	ND (0.0029)	ND (0.0056)	ND (0.0038)	ND (0.0031)	ND (0.0033)	ND (0.0029)	ND (0.0022)	ND (0.0019)	ND (0.0022)	ND (0.0024)	ND (0.0011)	ND (0.0023)	ND (0.0046)	ND (0.0022)	ND (0.0017)	ND (0.0029)	ND (0.0030)	ND (0.0021)	ND (0.0020)	ND (0.0015)	ND (0.0022)	ND (0.0014)	ND (0.0023
ans-1,2-Dichloroethene	NC	mg/kg	ND (0.0020)	ND (0.0039)	ND (0.0026)	ND (0.0021)	ND (0.0023)	ND (0.0020)	ND (0.0015)	ND (0.0013)	ND (0.0015)	ND (0.0017)	ND (0.00076)	ND (0.0016)	ND (0.0032)	ND (0.0015)	ND (0.0012)	ND (0.0020)	ND (0.0021)	ND (0.0014)	ND (0.0014)	ND (0.0010)	ND (0.0015)	ND (0.00095)	ND (0.001)
2-Dichloropropane	NC	mg/kg	ND (0.0012)	ND (0.0024)	ND (0.0016)	ND (0.0013)	ND (0.0014)	ND (0.0012)	ND (0.00094)	ND (0.00081)	ND (0.00094)	ND (0.0010)	ND (0.00046)	ND (0.00098)	ND (0.0019)	ND (0.00094)	ND (0.00071)	ND (0.0012)	ND (0.0013)	ND (0.00087)	ND (0.00084)	ND (0.00063)	ND (0.00093)	ND (0.00058)	ND (0.001)
s-1,3-Dichloropropene	NC NC	mg/kg	ND (0.0011)	ND (0.0020)	ND (0.0014)	ND (0.0011)	ND (0.0012)	ND (0.0011)	ND (0.00081)	ND (0.00070)	ND (0.00081)	ND (0.00088)	ND (0.00040)	ND (0.00085)	ND (0.0017)	ND (0.00081)	ND (0.00062)	ND (0.0011)	ND (0.0011)	ND (0.00076)	ND (0.00073)	ND (0.00055)	ND (0.00080)	ND (0.00050)	ND (0.0008
ans-1,3-Dichloropropene	NC 1.4	mg/kg	ND (0.0010) 0.0018 J	ND (0.0019) ND (0.0032)	ND (0.0013) ND (0.0022)	ND (0.0010) ND (0.0018)	ND (0.0011) ND (0.0019)	ND (0.00098) ND (0.0017)	ND (0.00075) ND (0.0013)	ND (0.00065) ND (0.0011)	ND (0.00075) ND (0.0013)	ND (0.00082) ND (0.0014)	ND (0.00037) ND (0.00063)	ND (0.00079) ND (0.0013)	ND (0.0016) ND (0.0026)	ND (0.00075) ND (0.0013)	ND (0.00057) ND (0.00097)	ND (0.0010) ND (0.0017)	ND (0.0010) ND (0.0018)	ND (0.00070) ND (0.0012)	ND (0.00068) ND (0.0011)	ND (0.00051) ND (0.00086)	ND (0.00074) ND (0.0013)	ND (0.00047) ND (0.00079)	ND (0.0008 ND (0.0014
hylbenzene eon 113	NC	mg/kg	ND (0.0023)	ND (0.0032)	ND (0.0022)	ND (0.0024)	ND (0.0019)	ND (0.0017)	ND (0.0013)	ND (0.0011)	ND (0.0018)	ND (0.0014)	ND (0.00087) a	ND (0.0013)	ND (0.0020)	ND (0.0013)	ND (0.00037)	ND (0.0017) ND (0.0023)	ND (0.0024)	ND (0.0012)	ND (0.0011)	ND (0.0003)	ND (0.0013)	ND (0.00079)	ND (0.001
Hexanone	NC	ma/ka	ND (0.0039)	ND (0.0074)	ND (0.0050)	ND (0.0041)	ND (0.0044)	ND (0.0038)	ND (0.0029)	ND (0.0025)	ND (0.0029)	ND (0.0032)	ND (0.0001)	ND (0.0031)	ND (0.0061)	ND (0.0029)	ND (0.0022)	ND (0.0023)	ND (0.0040)	ND (0.0027)	ND (0.0026)	ND (0.0020)	ND (0.0029)	ND (0.0018)	ND (0.003
opropylbenzene	0.984	mg/kg	ND (0.0021)	ND (0.0040)	ND (0.0028)	ND (0.0022)	ND (0.0024)	ND (0.0021)	ND (0.0016)	ND (0.0014)	ND (0.0016)	ND (0.0017)	ND (0.00079)	ND (0.0017)	ND (0.0033)	ND (0.0016)	ND (0.0012)	ND (0.0021)	ND (0.0022)	ND (0.0015)	ND (0.0014)	ND (0.0011)	ND (0.0016)	ND (0.0010)	ND (0.001
ethyl Acetate	NC	mg/kg	ND (0.0042)	ND (0.0081)	ND (0.0055)	ND (0.0045)	ND (0.0048)	ND (0.0042)	ND (0.0032)	ND (0.0028)	ND (0.0032)	ND (0.0035)	ND (0.0016)	ND (0.0033)	ND (0.0066)	ND (0.0032)	ND (0.0024)	ND (0.0043)	ND (0.0044)	ND (0.0030)	ND (0.0029)	ND (0.0022)	ND (0.0032)	ND (0.0020)	ND (0.0034
ethylcyclohexane	NC	mg/kg	ND (0.0022)	ND (0.0041)	ND (0.0028)	ND (0.0023)	ND (0.0024)	ND (0.0021)	ND (0.0016)	ND (0.0014)	ND (0.0016)	ND (0.0018)	ND (0.00081)	ND (0.0017)	ND (0.0034)	ND (0.0016)	ND (0.0012)	ND (0.0022)	ND (0.0022)	ND (0.0015)	ND (0.0015)	ND (0.0011)	ND (0.0016)	ND (0.0010)	ND (0.001
ethyl Tert Butyl Ether	2.911	mg/kg	ND (0.0011)	ND (0.0020)	ND (0.0014)	ND (0.0011)	ND (0.0012)	ND (0.0011)	ND (0.00081)	ND (0.00070)	ND (0.00081)	ND (0.00088)	ND (0.00040)	ND (0.00085)	ND (0.0017)	ND (0.00081)	ND (0.00062)	ND (0.0011)	ND (0.0011)	ND (0.00076)	ND (0.00073)	ND (0.00055)	ND (0.00080)	ND (0.00050)	ND (0.0008
Methyl-2-pentanone(MIBK)	NC NC	mg/kg	ND (0.0048) ND (0.0076)	ND (0.0091) ND (0.015)	ND (0.0062) ND (0.0099)	ND (0.0050) ND (0.0080)	ND (0.0054) ND (0.0086)	ND (0.0047) ND (0.0075)	ND (0.0036) ND (0.0058)	ND (0.0031) ND (0.0050)	ND (0.0036) ND (0.0057)	ND (0.0039) ND (0.0062)	ND (0.0018) ND (0.0029)	ND (0.0037) ND (0.0060)	ND (0.0074) ND (0.012)	ND (0.0036) ND (0.0058)	ND (0.0027) ND (0.0044)	ND (0.0048)	ND (0.0049) ND (0.0079)	ND (0.0034) ND (0.0054)	ND (0.0032) ND (0.0052)	ND (0.0024) ND (0.0039)	ND (0.0035) ND (0.0057)	ND (0.0022) ND (0.0036)	ND (0.0038
ethylene chloride vrene	NC NC	mg/kg mg/ka	ND (0.0076)	ND (0.013)	ND (0.0099)	ND (0.0080)	ND (0.0000)	ND (0.0073)	ND (0.0038)	ND (0.0030)	ND (0.0037)	ND (0.0002)	ND (0.0029)	ND (0.0000)	ND (0.012)	ND (0.0038)	ND (0.0044)	ND (0.0076) ND (0.0018)	ND (0.0079)	ND (0.0034)	ND (0.0032)	ND (0.0039)	ND (0.0037)	ND (0.0036)	ND (0.000
1,2,2-Tetrachloroethane	NC NC	mg/kg	ND (0.0012)	ND (0.0023)	ND (0.0015)	ND (0.0012)	ND (0.0013)	ND (0.0012)	ND (0.00090)	ND (0.00078)	ND (0.00090)	ND (0.00097)	ND (0.00044)	ND (0.00094)	ND (0.0019)	ND (0.00090)	ND (0.00068)	ND (0.0018)	ND (0.0012)	ND (0.00084)	ND (0.00081)	ND (0.00061)	ND (0.00089)	ND (0.00056)	ND (0.0009
etrachloroethene	0.45	mg/kg	ND (0.0014)	ND (0.0027)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.0014)	ND (0.0011)	ND (0.00092)	ND (0.0011)	ND (0.0012)	ND (0.00053)	ND (0.0011)	ND (0.0022)	ND (0.0011)	ND (0.00081)	ND (0.0014)	ND (0.0015)	ND (0.00099)	ND (0.00095)	ND (0.00072)	ND (0.0011)	ND (0.00066)	ND (0.001
bluene	2.5	mg/kg	ND (0.0011)	ND (0.0022)	ND (0.0015)	ND (0.0012)	ND (0.0013)	ND (0.0011)	ND (0.00087)	ND (0.00075)	ND (0.00086)	ND (0.00094)	0.00096 J	ND (0.00090)	ND (0.0018)	ND (0.00087)	ND (0.00066)	ND (0.0012)	ND (0.0012)	ND (0.00081)	ND (0.00078)	ND (0.00058)	ND (0.00086)	ND (0.00054)	ND (0.0009
2,3-Trichlorobenzene	NC	mg/kg	ND (0.0030)	ND (0.0058)	ND (0.0040)	ND (0.0032)	ND (0.0034)	ND (0.0030)	ND (0.0023)	ND (0.0020)	ND (0.0023)	ND (0.0025)	ND (0.0011)	ND (0.0024)	ND (0.0048)	ND (0.0023)	ND (0.0017)	ND (0.0031)	ND (0.0032)	ND (0.0021)	ND (0.0021)	ND (0.0016)	ND (0.0023)	ND (0.0014)	ND (0.002
2,4-Trichlorobenzene	0.0048	mg/kg	ND (0.0030)	ND (0.0058)	ND (0.0040)	ND (0.0032)	ND (0.0034)	ND (0.0030)	ND (0.0023)	ND (0.0020)	ND (0.0023)	ND (0.0025)	ND (0.0011)	ND (0.0024)	ND (0.0048)	ND (0.0023)	ND (0.0017)	ND (0.0031)	ND (0.0032)	ND (0.0021)	ND (0.0021)	ND (0.0016)	ND (0.0023)	ND (0.0014)	ND (0.002
1,1-Trichloroethane	NC NC	mg/kg	ND (0.0013) ND (0.0010)	ND (0.0025) ND (0.0020)	ND (0.0017) ND (0.0014)	ND (0.0014) ND (0.0011)	ND (0.0015) ND (0.0012)	ND (0.0013) ND (0.0010)	ND (0.00098) ND (0.00079)	ND (0.00085) ND (0.00068)	ND (0.00098)	ND (0.0011) ND (0.00085)	ND (0.00049) ND (0.00039)	ND (0.0010) ND (0.00082)	ND (0.0020) ND (0.0016)	ND (0.00098) ND (0.00079)	ND (0.00074) ND (0.00060)	ND (0.0013)	ND (0.0014) ND (0.0011)	ND (0.00092) ND (0.00074)	ND (0.00088) ND (0.00071)	ND (0.00066) ND (0.00053)	ND (0.00097) ND (0.00078)	ND (0.00061) ND (0.00049)	ND (0.001 ND (0.0008
1,2-Trichloroethane ichloroethene	NC NC	mg/kg	ND (0.0010)	ND (0.0020)	ND (0.0014)	ND (0.0011)	ND (0.0012) ND (0.0026)	ND (0.0010)	ND (0.00079)	ND (0.0008)	ND (0.00079)	ND (0.00085)	ND (0.00039)	ND (0.00082)	ND (0.0016)	ND (0.00079)	ND (0.00060)	ND (0.0010)	ND (0.0011)	ND (0.00074)	ND (0.00071)	ND (0.00053)	ND (0.00078)	ND (0.00049)	ND (0.0008
ichlorofluoromethane	NC NC	mg/kg mg/kg	ND (0.0021)	ND (0.0044)	ND (0.0027)	ND (0.0022)	ND (0.0023)	ND (0.0020)	ND (0.0016)	ND (0.0014)	ND (0.0016)	ND (0.0017)	ND (0.00078)	ND (0.0016)	ND (0.0032)	ND (0.0016)	ND (0.0012)	ND (0.0023)	ND (0.0022)	ND (0.0015)	ND (0.0014)	ND (0.0012)	ND (0.0017)	ND (0.00097)	ND (0.001
nyl chloride	NC	mg/kg	ND (0.0014)	ND (0.0027)	ND (0.0019)	ND (0.0015)	ND (0.0016)	ND (0.0014)	ND (0.0011)	ND (0.00094)	ND (0.0011)	ND (0.0012)	ND (0.00053)	ND (0.0011)	ND (0.0022) a	ND (0.0011)	ND (0.00082) a	ND (0.0021) ^a	ND (0.0015)	ND (0.0010) ^a	ND (0.00097)	ND (0.00073)	ND (0.0011) ^a	ND (0.00067)	ND (0.001
,p-Xylene	NC	mg/kg	0.0043	ND (0.0043)	ND (0.0030)	ND (0.0024)	ND (0.0026)	ND (0.0022)	ND (0.0017)	ND (0.0015)	ND (0.0017)	ND (0.0019)	ND (0.00085)	ND (0.0018)	ND (0.0036)	ND (0.0017)	ND (0.0013)	ND (0.0023)	ND (0.0024)	ND (0.0016)	ND (0.0015)	ND (0.0012)	ND (0.0017)	ND (0.0011)	ND (0.001
Xylene	NC	mg/kg	0.0018 J	ND (0.0034)	ND (0.0023)	ND (0.0019)	ND (0.0020)	ND (0.0017)	ND (0.0013)	ND (0.0012)	ND (0.0013)	ND (0.0015)	ND (0.00066)	ND (0.0014)	ND (0.0028)	ND (0.0013)	ND (0.0010)	ND (0.0018)	ND (0.0018)	ND (0.0013)	ND (0.0012)	ND (0.00091)	ND (0.0013)	ND (0.00083)	ND (0.001
/lene (total)	0.12	mg/kg	0.0061	ND (0.0034)	ND (0.0023)	ND (0.0019)	ND (0.0020)	ND (0.0017)	ND (0.0013)	ND (0.0012)	ND (0.0013)	ND (0.0015)	ND (0.00066)	ND (0.0014)	ND (0.0028)	ND (0.0013)	ND (0.0010)	ND (0.0018)	ND (0.0018)	ND (0.0013)	ND (0.0012)	ND (0.00091)	ND (0.0013)	ND (0.00083)	ND (0.001
S Volatile TIC																									

Client Sample ID:	NJDEP Ecological		SS-13A	SS-14A	SS-15A	SS-16A	SS-17A	SS-18A	SS-19A	SS-20A	SS-21A	SS-22A	SS-23A	SS-24A	SS-25A	SS-26A	SS-27A	SS-28A	SS-29A	SS-30A	SS-31A	SS-32A	SS-33A	SS-34A	SS-35A
Lab Sample ID:	Sediment - Saline Water		JC83457-13	JC83501-12	JC83457-10	JC83595-18	JC83595-12	JC83595-15	JC83683-2	JC83683-5	JC83683-8	JC83841-18	JC83841-15	JC83841-12	JC83223-1	JC83313-1	JC83223-7	JC83223-4	JC83313-4	JC83223-12	JC83313-10	JC83313-7	JC83223-15	JC83313-13	JC83313-16
Date Sampled:	Screening Criterion (ER-L or LEL)		2/26/2019	2/27/2019	2/26/2019	2/28/2019	2/28/2019	2/28/2019	3/1/2019	3/1/2019	3/1/2019	3/5/2019	3/5/2019	3/5/2019	2/21/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/22/2019	2/22/2019
Matrix:			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Semi-volatiles (SW846 8270D	0)																								
2-Chlorophenol	0.008	ma/ka	ND (0.037)	ND (0.053)	ND (0.045)	ND (0.033)	ND (0.041)	ND (0.035)	ND (0.031)	ND (0.029)	ND (0.025)	ND (0.030)	ND (0.022)	ND (0.032)	ND (0.041)	ND (0.035)	ND (0.031)	ND (0.035)	ND (0.039)	ND (0.029)	ND (0.032)	ND (0.028)	ND (0.031)	ND (0.026)	ND (0.032)
4-Chloro-3-methyl phenol	NC	mg/kg	ND (0.045)	ND (0.066)	ND (0.056)	ND (0.041) a	ND (0.051) ^a	ND (0.043) ^a	ND (0.038)	ND (0.036)	ND (0.031)	ND (0.038) ^a	ND (0.027) ^a	ND (0.040) ^a	ND (0.050)	ND (0.044)	ND (0.039)	ND (0.043)	ND (0.049)	ND (0.036)	ND (0.039)	ND (0.035)	ND (0.038)	ND (0.032)	ND (0.039)
2,4-Dichlorophenol	0.005	mg/kg	ND (0.063)	ND (0.092)	ND (0.078)	ND (0.058)	ND (0.072)	ND (0.060)	ND (0.053)	ND (0.050)	ND (0.043)	ND (0.052)	ND (0.037)	ND (0.055)	ND (0.070)	ND (0.061)	ND (0.054)	ND (0.060)	ND (0.068)	ND (0.051)	ND (0.055)	ND (0.049)	ND (0.053)	ND (0.044)	ND (0.054)
2,4-Dimethylphenol 2,4-Dinitrophenol	0.304 0.00621	mg/kg	ND (0.13) ND (0.28)	ND (0.19) ND (0.41)	ND (0.16) ND (0.34)	ND (0.12) ND (0.25)	ND (0.15) ND (0.32)	ND (0.12) ND (0.26)	ND (0.11) ND (0.23)	ND (0.11) ND (0.22)	ND (0.090) ND (0.19)	ND (0.11) ND (0.23)	ND (0.078) ND (0.16)	ND (0.12) ND (0.24)	ND (0.15) ND (0.31)	ND (0.13) ND (0.27)	ND (0.11) ND (0.24)	ND (0.12)	ND (0.14) ND (0.30)	ND (0.11) ND (0.22)	ND (0.11) ND (0.24)	ND (0.10) ND (0.22)	ND (0.11) ND (0.23)	ND (0.092) ND (0.19)	ND (0.11) ND (0.24)
4,6-Dinitro-o-cresol	NC NC	mg/kg	ND (0.079)	ND (0.12)	ND (0.098)	ND (0.072)	ND (0.090)	ND (0.075)	ND (0.067)	ND (0.063)	ND (0.054)	ND (0.065)	ND (0.047)	ND (0.070)	ND (0.088)	ND (0.076)	ND (0.067)	ND (0.25)	ND (0.085)	ND (0.063)	ND (0.069)	ND (0.062)	ND (0.066)	ND (0.055)	ND (0.068)
2-Methylphenol	NC	mg/kg	ND (0.047)	ND (0.069)	ND (0.059)	ND (0.043)	ND (0.054)	ND (0.045)	ND (0.040)	ND (0.038)	ND (0.032)	ND (0.039)	ND (0.028)	ND (0.042)	ND (0.053)	ND (0.045)	ND (0.040)	ND (0.045)	ND (0.051)	ND (0.038)	ND (0.041)	ND (0.037)	ND (0.040)	ND (0.033)	ND (0.041)
3&4-Methylphenol 2-Nitrophenol	NC NC	mg/kg mg/kg	0.103 J ND (0.049)	ND (0.089) ND (0.071) ^a	ND (0.075) ND (0.061)	ND (0.056) ND (0.045)	ND (0.069) ND (0.056)	ND (0.058) ND (0.046)	ND (0.051) ND (0.041)	ND (0.049) ND (0.039)	ND (0.042) ND (0.033)	ND (0.050) ND (0.040)	ND (0.036) ND (0.029)	ND (0.053) b ND (0.043) a	ND (0.068) ND (0.054)	ND (0.058) ND (0.047)	ND (0.052) ND (0.042) ^a	ND (0.058) ND (0.046)	ND (0.066) ND (0.053)	ND (0.049) ND (0.039) ^a	ND (0.053) ND (0.042)	ND (0.047) ND (0.038)	ND (0.051) ND (0.041) ^a	ND (0.043) ND (0.034)	ND (0.053) ND (0.042)
4-Nitrophenol	0.0133	mg/kg	ND (0.20) b	ND (0.071)	ND (0.24) b	ND (0.18) ^a	ND (0.22) ^a	ND (0.19) ^a	ND (0.17)	ND (0.16)	ND (0.14)	ND (0.16)	ND (0.12)	ND (0.043)	ND (0.22)	ND (0.19) °	ND (0.042)	ND (0.046)	ND (0.21)	ND (0.039)	ND (0.17)	ND (0.15)	ND (0.041)	ND (0.14) °	ND (0.042)
Pentachlorophenol	0.017	mg/kg	ND (0.069)	ND (0.10)	ND (0.086)	ND (0.064)	ND (0.079)	ND (0.066)	ND (0.058)	ND (0.056)	ND (0.047)	ND (0.057)	ND (0.041)	ND (0.061)	ND (0.077)	ND (0.067)	ND (0.059)	ND (0.066)	ND (0.075)	ND (0.056)	ND (0.060)	ND (0.054)	ND (0.058)	ND (0.049)	ND (0.060)
Phenol	0.13 NC	mg/kg	ND (0.039)	ND (0.056) ND (0.071)	ND (0.048)	ND (0.035) ND (0.045)	ND (0.044) ND (0.056)	ND (0.037) ND (0.046)	ND (0.033) ND (0.041)	ND (0.031) ND (0.039)	ND (0.026) ND (0.033)	ND (0.032) ND (0.041)	ND (0.023) ND (0.029)	ND (0.034) ND (0.043)	ND (0.043) ND (0.054)	ND (0.037) ND (0.047)	ND (0.033)	ND (0.037)	ND (0.042) ND (0.053)	ND (0.031)	ND (0.034) ND (0.043)	ND (0.030) ND (0.038)	ND (0.032)	ND (0.027) ND (0.034)	ND (0.033) ND (0.042)
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	NC NC	mg/kg mg/kg	ND (0.049) ^a ND (0.055)	ND (0.071)	ND (0.061) a ND (0.069)	ND (0.043)	ND (0.063)	ND (0.040)	ND (0.041)	ND (0.039)	ND (0.038)	ND (0.041)	ND (0.023)	ND (0.043)	ND (0.062)	ND (0.053)	ND (0.042) ^a ND (0.047) ^a	ND (0.046) ND (0.052)	ND (0.060)	ND (0.039) ^a ND (0.044) ^a	ND (0.048)	ND (0.043)	ND (0.041) a ND (0.046) a	ND (0.034)	ND (0.048)
2,4,6-Trichlorophenol	0.006	mg/kg	ND (0.044)	ND (0.064)	ND (0.055)	ND (0.040)	ND (0.050)	ND (0.042)	ND (0.037)	ND (0.035)	ND (0.030)	ND (0.036)	ND (0.026)	ND (0.039)	ND (0.049)	ND (0.042)	ND (0.038)	ND (0.042)	ND (0.048)	ND (0.035)	ND (0.038)	ND (0.034)	ND (0.037)	ND (0.031)	ND (0.038)
Acenaphthene	0.016	mg/kg	0.134	ND (0.037)	ND (0.032)	ND (0.023)	ND (0.029)	ND (0.024)	ND (0.021)	ND (0.020)	ND (0.017)	ND (0.021)	ND (0.015)	ND (0.022)	ND (0.028)	ND (0.024)	ND (0.022)	ND (0.024)	ND (0.028)	ND (0.020)	ND (0.022)	ND (0.020)	ND (0.021)	ND (0.018)	ND (0.022)
Acenaphthylene Acetophenone	0.044 NC	mg/kg mg/ka	0.102 ND (0.016)	ND (0.055) ND (0.023)	ND (0.047) ND (0.020)	ND (0.034) ND (0.015)	ND (0.043) ND (0.018)	ND (0.036) ND (0.015)	ND (0.032) ND (0.013)	ND (0.030) ND (0.013)	ND (0.026) ND (0.011)	ND (0.031) ND (0.013)	ND (0.022) ND (0.0094)	ND (0.033) ND (0.014) ^b	ND (0.042) ND (0.018)	ND (0.036) ND (0.015)	ND (0.032) ND (0.014)	ND (0.036) ND (0.015)	ND (0.041) ND (0.017)	ND (0.030) ND (0.013)	ND (0.033) ND (0.014)	ND (0.029) ND (0.012)	ND (0.031) ND (0.013)	ND (0.026) ND (0.011)	ND (0.032) ND (0.014)
Anthracene	0.085	mg/kg	0.351	ND (0.066)	ND (0.056)	ND (0.041)	ND (0.051)	ND (0.043)	ND (0.038)	ND (0.036)	ND (0.031)	ND (0.038)	ND (0.027)	ND (0.040)	ND (0.050)	ND (0.044)	0.0421 J	ND (0.043)	ND (0.049)	ND (0.036)	ND (0.039)	ND (0.035)	ND (0.038)	ND (0.032)	ND (0.039)
Atrazine	NC	mg/kg	ND (0.032)	ND (0.046) ^a	ND (0.039)	ND (0.029)	ND (0.036)	ND (0.030)	ND (0.027)	ND (0.025) ^a	ND (0.022) ^a	ND (0.026)	ND (0.019)	ND (0.028)	ND (0.035)	ND (0.030)	ND (0.027)	ND (0.030)	ND (0.034)	ND (0.025)	ND (0.027)	ND (0.025)	ND (0.027)	ND (0.022)	ND (0.027)
Benzo(a)anthracene Benzo(a)pyrene	0.261 0.43	mg/kg mg/kg	0.329 0.316	0.0703 J 0.0591 J ^d	0.0858 J 0.213	ND (0.019) ND (0.031)	0.149 0.166	0.0453 J 0.0491 J	0.0206 J ND (0.028)	0.0749 0.0735	0.0269 J 0.0239 J	ND (0.017) ND (0.028)	ND (0.012) ND (0.020)	0.0436 J 0.0401 J	0.0521 J 0.0525 J	ND (0.020) ND (0.032)	0.0952 0.102 ^d	0.0310 J ND (0.032)	0.0551 J 0.0574 J	0.0481 J 0.0555 J ^d	0.0215 J ND (0.029)	0.0455 J 0.0541 J	0.127 0.174 ^d	0.0226 J 0.0241 J	0.0550 J 0.0739
Benzo(a)pyrene Benzo(b)fluoranthene	1.8	mg/kg mg/kg	0.301	0.0391 J ^d	0.102	ND (0.030)	0.216	0.0613 J	ND (0.028)	0.108	0.0275 J	ND (0.027)	ND (0.019)	0.0501 J ^d	0.0598 J	ND (0.031) ^d	0.102	ND (0.032) ND (0.031)	0.0684 J	0.0584 J	ND (0.028)	0.07	0.174	0.0285 J ^d	0.116 ^d
Benzo(g,h,i)perylene	0.17	mg/kg	0.194	ND (0.054)	0.0743 J	ND (0.034)	0.131	0.0486 J	ND (0.031)	0.0669	ND (0.025)	ND (0.031)	ND (0.022)	0.0326 J	ND (0.041)	ND (0.035)	0.0843	ND (0.035)	0.0469 J	0.0447 J	ND (0.032)	0.0399 J	0.109	ND (0.026)	0.0608 J
Benzo(k)fluoranthene 4-Bromophenyl phenyl ether	0.24 NC	mg/kg	0.0876 ND (0.029)	ND (0.050) ND (0.042)	ND (0.043) ND (0.035)	ND (0.032) ND (0.026)	0.1 ND (0.032)	ND (0.033) ND (0.027)	ND (0.029) ND (0.024)	0.0436 J ND (0.023)	ND (0.024) ND (0.020)	ND (0.029) ND (0.024)	ND (0.020) ND (0.017)	ND (0.030) ND (0.025)	ND (0.038) ND (0.032)	ND (0.033) ND (0.027)	0.0396 J ND (0.024)	ND (0.033) ND (0.027)	0.0393 J ND (0.031) ^b	ND (0.028) ND (0.023)	ND (0.030) ND (0.025) ^b	0.0308 J ND (0.022) ^b	0.0604 J ND (0.024)	ND (0.024) ND (0.020)	0.0343 J ND (0.025)
Butyl benzyl phthalate	0.063	mg/kg	ND (0.029)	ND (0.042)	ND (0.033)	ND (0.020)	ND (0.032)	ND (0.027)	ND (0.024)	ND (0.023)	ND (0.020)	ND (0.024)	ND (0.011)	ND (0.023)	ND (0.032)	ND (0.027)	ND (0.024)	ND (0.027) ND (0.017)	ND (0.031)	ND (0.023)	ND (0.025)	ND (0.022)	ND (0.024)	ND (0.020)	ND (0.023)
1,1'-Biphenyl	NC	mg/kg	0.0344 J	ND (0.015)	0.0187 J	ND (0.0093)	ND (0.012)	ND (0.0096)	ND (0.0085)	ND (0.0081)	ND (0.0069)	ND (0.0084)	ND (0.0060)	ND (0.0089)	ND (0.011)	ND (0.0097)	ND (0.0086)	ND (0.0096)	ND (0.011)	ND (0.0081)	ND (0.0088)	ND (0.0079)	0.0093 J	ND (0.0071)	ND (0.0088)
Benzaldehyde	NC 0,417	mg/kg	ND (0.018) ND (0.018)	10.5 ^d ND (0.026)	ND (0.023) ND (0.022)	ND (0.017) ^a ND (0.016)	ND (0.021) ^a ND (0.020)	ND (0.017) ^a ND (0.017)	ND (0.015) ND (0.015)	ND (0.015) ND (0.014)	ND (0.013) ND (0.012)	ND (0.015) ^a ND (0.015)	ND (0.011) ^a ND (0.010)	ND (0.016) ND (0.015)	ND (0.020) ND (0.020)	ND (0.018) ND (0.017)	ND (0.016) ND (0.015)	ND (0.017)	ND (0.020) ND (0.019)	ND (0.015) ND (0.014)	ND (0.016) ND (0.015)	ND (0.014) ND (0.014)	ND (0.015) ND (0.015)	ND (0.013) ND (0.012)	ND (0.016) ND (0.015)
2-Chloronaphthalene 4-Chloroaniline	NC	mg/kg mg/kg	ND (0.018)	ND (0.028)	ND (0.022)	ND (0.016)	ND (0.020)	ND (0.017)	ND (0.013) ND (0.022)	ND (0.014)	ND (0.012) ND (0.018)	ND (0.013)	ND (0.016)	ND (0.013)	ND (0.020)	ND (0.017)	ND (0.013)	ND (0.017) ND (0.025)	ND (0.019)	ND (0.014)	ND (0.013)	ND (0.014)	ND (0.013) ND (0.022)	ND (0.012) ND (0.019)	ND (0.013) ND (0.023)
Carbazole	NC	mg/kg	0.0543 J	ND (0.016)	ND (0.013)	ND (0.0098)	0.0162 J	ND (0.010)	ND (0.0090)	ND (0.0086)	ND (0.0073)	ND (0.0089)	ND (0.0063)	ND (0.0094)	ND (0.012)	ND (0.010)	0.0125 J	ND (0.010)	ND (0.012)	ND (0.0086)	ND (0.0093)	ND (0.0084)	ND (0.0090)	ND (0.0075)	ND (0.0093)
Caprolactam	NC 0.384	mg/kg	ND (0.029)	ND (0.043)	ND (0.036)	ND (0.027)	ND (0.033)	ND (0.028) 0.0468 J	ND (0.025)	ND (0.023)	ND (0.020)	ND (0.024)	ND (0.017)	ND (0.026) ^a	ND (0.032)	ND (0.028)	ND (0.025)	ND (0.028)	ND (0.032) ^a	ND (0.023)	ND (0.025) a	ND (0.023) ^a	ND (0.024)	ND (0.020)	ND (0.025)
Chrysene bis(2-Chloroethoxy)methane	NC	mg/kg mg/kg	0.375 ND (0.016)	0.0726 J ND (0.023)	0.0898 J ND (0.020)	ND (0.021) ND (0.014)	0.171 ND (0.018)	ND (0.015)	ND (0.020) ND (0.013)	0.096 ND (0.013)	0.0220 J ND (0.011)	ND (0.019) ND (0.013)	ND (0.014) ND (0.0094)	0.0524 J ND (0.014)	0.0445 J ND (0.018)	ND (0.022) ND (0.015)	0.1 ND (0.013)	0.0268 J ND (0.015)	0.0607 J ND (0.017)	0.0534 J ND (0.013)	ND (0.020) ND (0.014)	0.0557 J ND (0.012)	0.124 ND (0.013)	0.0242 J ND (0.011)	0.0714 ND (0.014)
bis(2-Chloroethyl)ether	3.52	mg/kg	ND (0.032)	ND (0.047)	ND (0.040)	ND (0.029)	ND (0.036)	ND (0.030)	ND (0.027)	ND (0.025)	ND (0.022)	ND (0.026)	ND (0.019)	ND (0.028)	ND (0.035)	ND (0.031)	ND (0.027)	ND (0.030)	ND (0.034)	ND (0.026)	ND (0.028)	ND (0.025)	ND (0.027)	ND (0.022)	ND (0.028)
2,2'-Oxybis(1-chloropropane)	NC NC	mg/kg	ND (0.027)	ND (0.039) b	ND (0.033)	ND (0.024)	ND (0.030)	ND (0.025)	ND (0.022)	ND (0.021)	ND (0.018)	ND (0.022)	ND (0.016)	ND (0.023)	ND (0.029)	ND (0.025)	ND (0.023)	ND (0.025)	ND (0.029)	ND (0.021)	ND (0.023)	ND (0.021)	ND (0.022)	ND (0.019)	ND (0.023)
4-Chlorophenyl phenyl ether 2,4-Dinitrotoluene	NC 0.0144	mg/kg	ND (0.024) ND (0.023) ^a	ND (0.035) ND (0.033)	ND (0.030) ND (0.028) ^a	ND (0.022) ND (0.021)	ND (0.027) ND (0.026)	ND (0.023) ND (0.022)	ND (0.020) ND (0.019)	ND (0.019) ND (0.018)	ND (0.016) ND (0.016)	ND (0.020) ND (0.019) ^a	ND (0.014) ND (0.014) ^a	ND (0.021) ND (0.020)	ND (0.027) ND (0.025)	ND (0.023) ND (0.022)	ND (0.020) ND (0.020)	ND (0.023) ND (0.022)	ND (0.026) ND (0.025)	ND (0.019) ND (0.018)	ND (0.021) ND (0.020)	ND (0.019) ND (0.018)	ND (0.020) ND (0.019)	ND (0.017) ND (0.016)	ND (0.021) ND (0.020)
2,6-Dinitrotoluene	NC	mg/kg	ND (0.037)	ND (0.054)	ND (0.046)	ND (0.034)	ND (0.042)	ND (0.035)	ND (0.031)	ND (0.030)	ND (0.025)	ND (0.031)	ND (0.022)	ND (0.033)	ND (0.041)	ND (0.036)	ND (0.032)	ND (0.035)	ND (0.040)	ND (0.030)	ND (0.032)	ND (0.029)	ND (0.031)	ND (0.026)	ND (0.032)
3,3'-Dichlorobenzidine	0.127	mg/kg	ND (0.062)	ND (0.090)	ND (0.076)	ND (0.056)	ND (0.070)	ND (0.058)	ND (0.052)	ND (0.049)	ND (0.042)	ND (0.051)	ND (0.036)	ND (0.054)	ND (0.069)	ND (0.059)	ND (0.053)	ND (0.058)	ND (0.067)	ND (0.049)	ND (0.054)	ND (0.048)	ND (0.052)	ND (0.043)	ND (0.053)
1,4-Dioxane Dibenzo(a h)anthracene	NC 0.063	mg/kg mg/kg	ND (0.049) 0.0466 J	ND (0.071) 0.178	ND (0.061) ND (0.041)	ND (0.045) ND (0.030)	ND (0.056) ND (0.037)	ND (0.046) ND (0.031)	ND (0.041) ND (0.028)	ND (0.039) ND (0.026)	ND (0.033) ND (0.022)	ND (0.040) ND (0.027)	ND (0.029) ND (0.019)	ND (0.043) 0.108	ND (0.054) ND (0.036)	ND (0.047) ° ND (0.031)	ND (0.042) ND (0.028) ^a	ND (0.046) ND (0.031)	ND (0.053) ND (0.035)	ND (0.039) ND (0.026) ^a	ND (0.042) ND (0.028)	ND (0.038) ND (0.025)	ND (0.041) ND (0.027) ^a	ND (0.034) ° 0.0848	ND (0.042) ° 0.112
Dibenzofuran ¹	7.3	mg/kg	0.0625 J	ND (0.044)	ND (0.037)	ND (0.028)	ND (0.034)	ND (0.028)	ND (0.025)	ND (0.024)	ND (0.021)	ND (0.025)	ND (0.018)	ND (0.026)	ND (0.033)	ND (0.029)	ND (0.026)	ND (0.031)	ND (0.032)	ND (0.024)	ND (0.026)	ND (0.023)	ND (0.025)	ND (0.021)	ND (0.026)
Di-n-butyl phthalate	0.058	mg/kg	ND (0.012)	ND (0.018) ^a	ND (0.015)	ND (0.011)	ND (0.014)	ND (0.011)	ND (0.010) ^a	ND (0.0096)	ND (0.0082)	ND (0.010)	ND (0.0071)	ND (0.011) ^a	ND (0.013)	ND (0.012)	ND (0.010)	ND (0.011)	ND (0.013)	ND (0.0097)	ND (0.010)	ND (0.0094)	ND (0.010)	ND (0.0084)	ND (0.010)
Di-n-octyl phthalate	NC 0.006	mg/kg	ND (0.018) ND (0.016)	ND (0.027) ND (0.023)	ND (0.023) ND (0.020)	ND (0.017) ND (0.014)	ND (0.021) ND (0.018)	ND (0.017) ND (0.015)	ND (0.016) ND (0.013)	ND (0.015) ND (0.013)	ND (0.013) ND (0.011)	ND (0.015) ND (0.013)	ND (0.011) ND (0.0093)	ND (0.016) ND (0.014)	ND (0.020) ^a ND (0.018)	ND (0.018) ND (0.015)	ND (0.016) ^a ND (0.013)	ND (0.017) ^a	ND (0.020) ^a ND (0.017)	ND (0.015) ^a ND (0.013)	ND (0.016) ^a ND (0.014)	ND (0.014) ^a ND (0.012)	ND (0.015) a ND (0.013)	ND (0.013) ND (0.011)	ND (0.016) ND (0.014)
Diethyl phthalate Dimethyl phthalate	NC	mg/kg mg/kg	ND (0.013)	ND (0.019)	ND (0.016)	ND (0.012)	ND (0.015)	ND (0.012)	ND (0.011)	ND (0.011)	ND (0.0090)	ND (0.011)	ND (0.0038)	ND (0.014)	ND (0.015)	ND (0.013)	ND (0.011)	ND (0.015) ND (0.012)	ND (0.014)	ND (0.011)	ND (0.011)	ND (0.012)	ND (0.011)	ND (0.0092)	ND (0.011)
bis(2-Ethylhexyl)phthalate	0.182	mg/kg	0.788	ND (0.025) a	ND (0.021)	ND (0.016)	0.489	0.119 J	ND (0.015) ^a	0.426	0.0870 J	ND (0.014) ^a	ND (0.010) ^a	0.147 ^d	ND (0.019)	0.325 ^d	ND (0.015) ^a	ND (0.016)	ND (0.019) ^e	ND (0.014) ^a	ND (0.015) ^e	ND (0.013) ^e	ND (0.014) ^a	0.504 ^d	0.161 ^d
Fluoranthene Fluorene	0.6 0.019	mg/kg mg/kg	0.815 0.116	0.137 ND (0.050)	0.134 ND (0.042)	ND (0.030) ND (0.031)	0.214 ND (0.039)	0.0594 J ND (0.032)	ND (0.028) ND (0.029)	0.122 ND (0.027)	0.0274 J ND (0.023)	ND (0.027) ND (0.028)	ND (0.019) ND (0.020)	0.0776 ND (0.030)	0.0762 J ND (0.038)	0.0625 J ND (0.033)	0.159 ND (0.029)	0.0374 J ND (0.032)	0.0788 J ND (0.037)	0.0601 ND (0.027)	0.0365 J ND (0.029)	0.0957 ND (0.026)	0.134 ND (0.028)	0.0451 J ND (0.024)	0.135 ND (0.029)
Hexachlorobenzene	0.02	mg/kg mg/kg	ND (0.019)	ND (0.030)	ND (0.042)	ND (0.031) ND (0.017) ^b	ND (0.039)	ND (0.032)	ND (0.029)	ND (0.027)	ND (0.023)	ND (0.028)	ND (0.020)	ND (0.030)	ND (0.036)	ND (0.033)	ND (0.029)	ND (0.032) ND (0.018)	ND (0.037) ND (0.020) ^b	ND (0.027)	ND (0.029) ND (0.016) ^b	ND (0.026) ND (0.015) ^b	ND (0.028)	ND (0.024)	ND (0.029) ND (0.016)
Hexachlorobutadiene	0.0013	mg/kg	ND (0.030)	ND (0.043)	ND (0.037)	ND (0.027)	ND (0.034)	ND (0.028)	ND (0.025)	ND (0.024)	ND (0.020)	ND (0.025)	ND (0.018)	ND (0.026) ^a	ND (0.033)	ND (0.029)	ND (0.025)	ND (0.028)	ND (0.032)	ND (0.024)	ND (0.026)	ND (0.023)	ND (0.025)	ND (0.021)	ND (0.026)
Hexachlorocyclopentadiene	0.901 0.584	mg/kg	ND (0.029) ND (0.037)	ND (0.043) ND (0.053)	ND (0.036) ND (0.045)	ND (0.027) ND (0.033)	ND (0.033) ND (0.042)	ND (0.028) ND (0.035)	ND (0.025) ND (0.031)	ND (0.024) ND (0.029)	ND (0.020) ND (0.025)	ND (0.024) ND (0.030)	ND (0.017) ND (0.022)	ND (0.026) ND (0.032)	ND (0.033) ND (0.041)	ND (0.028) ND (0.035)	ND (0.025) ND (0.031)	ND (0.028) ND (0.035)	ND (0.032) ND (0.039)	ND (0.024) ND (0.029)	ND (0.026) ND (0.032)	ND (0.023) ND (0.029)	ND (0.025) ND (0.031)	ND (0.021) ND (0.026)	ND (0.025) ND (0.032)
Hexachloroethane Indeno(1,2,3-cd)pyrene	0.364	mg/kg mg/kg	0.212	0.248	0.192	ND (0.032)	0.135	0.0449 J	ND (0.031)	0.116	ND (0.024)	ND (0.030)	ND (0.022)	0.15	ND (0.039)	ND (0.033)	0.0645 ^d	ND (0.035) ND (0.033)	0.11	0.0330 J ^d	ND (0.032)	0.0868	0.0811 ^d	0.117	0.179
Isophorone	0.432	mg/kg	ND (0.016)	ND (0.023)	ND (0.020)	ND (0.014)	ND (0.018)	ND (0.015)	ND (0.013)	ND (0.013)	ND (0.011)	ND (0.013)	ND (0.0094)	ND (0.014)	ND (0.018)	ND (0.015)	ND (0.013)	ND (0.015)	ND (0.017)	ND (0.013)	ND (0.014)	ND (0.012)	ND (0.013)	ND (0.011)	ND (0.014)
2-Methylnaphthalene	0.07	mg/kg	0.143 ND (0.017)	ND (0.024)	0.0263 J	ND (0.015)	ND (0.019)	ND (0.016)	ND (0.014)	ND (0.013)	ND (0.011)	ND (0.014)	ND (0.0099)	ND (0.015)	ND (0.019)	ND (0.016)	ND (0.014)	ND (0.016)	ND (0.018)	ND (0.013)	ND (0.015)	ND (0.013)	ND (0.014)	ND (0.012)	ND (0.014)
2-Nitroaniline 3-Nitroaniline	NC NC	mg/kg mg/kg	ND (0.017) ND (0.018)	ND (0.025) a ND (0.027)	ND (0.022) ND (0.023)	ND (0.016) ND (0.017) ^a	ND (0.020) ND (0.021) ^a	ND (0.017) ND (0.017) ^a	ND (0.015) ND (0.016)	ND (0.014) ND (0.015)	ND (0.012) ND (0.013)	ND (0.014) ND (0.015)	ND (0.010) ND (0.011)	ND (0.015) ND (0.016)	ND (0.019) ^a ND (0.021)	ND (0.017) ° ND (0.018)	ND (0.015) ^a ND (0.016)	ND (0.017) ^a ND (0.017)	ND (0.019) ND (0.020)	ND (0.014) ^a ND (0.015)	ND (0.015) ND (0.016)	ND (0.014) ND (0.014)	ND (0.015) a ND (0.015)	ND (0.012) ° ND (0.013)	ND (0.015) ° ND (0.016)
4-Nitroaniline	NC	mg/kg	ND (0.019)	ND (0.028)	ND (0.024)	ND (0.018)	ND (0.022)	ND (0.018)	ND (0.016) b	ND (0.015)	ND (0.013)	ND (0.016)	ND (0.011)	ND (0.017)	ND (0.021)	ND (0.018)	ND (0.016)	ND (0.018)	ND (0.021)	ND (0.015)	ND (0.017)	ND (0.015)	ND (0.016)	ND (0.013)	ND (0.017)
Naphthalene	0.16	mg/kg	0.237	ND (0.030)	0.0778 J	ND (0.019)	ND (0.024)	ND (0.020)	ND (0.018)	ND (0.017)	ND (0.014)	ND (0.017)	ND (0.012)	ND (0.018)	ND (0.023)	ND (0.020)	ND (0.018)	ND (0.020)	ND (0.023)	ND (0.017)	ND (0.018)	ND (0.016)	0.0172 J	ND (0.015)	ND (0.018)
Nitrobenzene N-Nitroso-di-n-propylamine	0.145 NC	mg/kg mg/kg	ND (0.029) ND (0.021)	ND (0.042) ND (0.031)	ND (0.035) ND (0.026)	ND (0.026) ND (0.020)	ND (0.032) ND (0.024)	ND (0.027) ND (0.020)	ND (0.024) ND (0.018)	ND (0.023) ND (0.017)	ND (0.020) ND (0.015)	ND (0.024) ND (0.018)	ND (0.017) ND (0.013)	ND (0.025) ND (0.019)	ND (0.032) ND (0.024)	ND (0.027) ND (0.021)	ND (0.024) ND (0.018)	ND (0.027) ND (0.020)	ND (0.031) ND (0.023)	ND (0.023) ND (0.017)	ND (0.025) ND (0.019)	ND (0.022) ND (0.017)	ND (0.024) ND (0.018)	ND (0.020) ND (0.015)	ND (0.025) ND (0.018)
N-Nitrosodiphenylamine	NC NC	mg/kg	ND (0.027)	ND (0.039)	ND (0.034)	ND (0.025)	ND (0.031)	ND (0.026)	ND (0.023)	ND (0.022)	ND (0.019)	ND (0.022)	ND (0.016)	ND (0.024)	ND (0.030)	ND (0.026)	ND (0.023)	ND (0.020) ND (0.026)	ND (0.029)	ND (0.022)	ND (0.024)	ND (0.021)	ND (0.023)	ND (0.019)	ND (0.023)
Phenanthrene	0.24	mg/kg	0.302	0.0649 J	0.0786 J	ND (0.023) b	0.0852 b	0.0359 J ^b	ND (0.021)	0.0325 J	ND (0.017)	ND (0.021)	ND (0.015)	ND (0.022)	ND (0.028)	ND (0.024)	0.0964	ND (0.024)	ND (0.027)	0.0219 J	ND (0.022)	0.0385 J	0.0481 J	ND (0.017)	0.0351 J
Pyrene 1,2,4,5-Tetrachlorobenzene	0.665 1.252	mg/kg mg/kg	0.917 ND (0.019)	0.136 ND (0.027)	0.131 ND (0.023)	0.0286 J ND (0.017)	0.352 ND (0.021)	0.0984 ND (0.018)	0.0270 J ND (0.016)	0.155 ND (0.015)	0.0330 J ND (0.013)	ND (0.020) ND (0.016)	0.0312 J ND (0.011)	0.126 ND (0.017)	0.0703 J ND (0.021)	0.094 ND (0.018)	0.176 ND (0.016)	0.0396 J ND (0.018)	0.119 ND (0.020) ^b	0.0709 ND (0.015)	0.0609 J ND (0.016) ^b	0.113 ND (0.015) ^b	0.178 ND (0.016)	0.0529 ND (0.013)	0.136 ND (0.016)
Total PAHs	4	mg/kg mg/kg	4.9	1	1.2	0.03	1.7	0.49	0.05	0.89	0.16	0	0.03	0.68	0.36	0.16	1.1	0.13	0.64	0.45	0.12	0.63	1.2	0.42	1.1
MS Semi-volatile TIC																									
									1					,											
Total TIC, Semi-Volatile	NC	mg/kg	32.96 J	16.5 J	32.42 J	0	2.19 J	0.95 J	0	0.71 J	0	0	1.9 J	0	0	16.79 J	1.05 J	0.85	0.88 J	0.35 J	0.26 J	0.61 J	0.35 J	1.84 J	1.98 J

Table 7.4 Smith Creek & Pond Sediment Screening - Ecological Evaluation Former Hess Port Reading Terminal Site Port Reading, New Jersey

											Port R	Reading, New Je	rsey												
Client Sample ID:			SS-13A	SS-14A	SS-15A	SS-16A	SS-17A	SS-18A	SS-19A	SS-20A	SS-21A	SS-22A	SS-23A	SS-24A	SS-25A	SS-26A	SS-27A	SS-28A	SS-29A	SS-30A	SS-31A	SS-32A	SS-33A	SS-34A	SS-35A
Lab Sample ID:	NJDEP Ecological Sediment - Saline Water		JC83457-13	JC83501-12	JC83457-10	JC83595-18	JC83595-12	JC83595-15	JC83683-2	JC83683-5	JC83683-8	JC83841-18	JC83841-15	JC83841-12	JC83223-1	JC83313-1	JC83223-7	JC83223-4	JC83313-4	JC83223-12	JC83313-10	JC83313-7	JC83223-15	JC83313-13	JC83313-16
Date Sampled:	Screening Criterion		2/26/2019	2/27/2019	2/26/2019	2/28/2019	2/28/2019	2/28/2019	3/1/2019	3/1/2019	3/1/2019	3/5/2019	3/5/2019	3/5/2019	2/21/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/22/2019	2/22/2019
Matrix:	(ER-L or LEL)		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
GC/LC Semi-volatiles (NJDEP E	EPH)																								
C10-C12 Aromatics	NC	mg/kg	ND (6.2)	ND (8.4)	ND (6.7)	ND (5.3)	ND (6.8)	ND (5.6)	ND (5.3)	ND (5.0)	ND (3.9)	ND (4.9)	ND (3.5)	ND (5.5)	ND (6.3)	ND (5.8)	ND (5.1)	ND (5.3)	ND (6.3)	ND (5.1)	ND (4.9)	ND (4.6)	ND (4.9)	ND (4.2)	ND (4.9)
C12-C16 Aromatics	NC	mg/kg	ND (6.2)	ND (8.4)	ND (6.7)	ND (5.3)	ND (6.8)	ND (5.6)	ND (5.3)	ND (5.0)	ND (3.9)	ND (4.9)	ND (3.5)	ND (5.5)	ND (6.3)	ND (5.8)	ND (5.1)	ND (5.3)	ND (6.3)	ND (5.1)	ND (4.9)	ND (4.6)	ND (4.9)	ND (4.2)	ND (4.9)
C16-C21 Aromatics	NC	mg/kg	44.2	ND (8.4)	ND (6.7)	34.6	ND (6.8)	ND (5.6)	ND (5.3)	ND (5.0)	ND (3.9)	ND (4.9)	ND (3.5)	51	ND (6.3)	43.8	ND (5.1)	ND (5.3)	ND (6.3)	ND (5.1)	ND (4.9)	ND (4.6)	ND (4.9)	ND (4.2)	ND (4.9)
C21-C36 Aromatics	NC NC	mg/kg	56.6 101	ND (8.4) ND (8.4)	ND (6.7) ND (6.7)	98 133	ND (6.8) ND (6.8)	ND (5.6) ND (5.6)	ND (5.3) ND (5.3)	ND (5.0) ND (5.0)	ND (3.9) ND (3.9)	ND (4.9) ND (4.9)	ND (3.5) ND (3.5)	65.1 116	ND (6.3) ND (6.3)	85.8 130	ND (5.1) ND (5.1)	ND (5.3)	ND (6.3) ND (6.3)	ND (5.1) ND (5.1)	ND (4.9) ND (4.9)	ND (4.6) ND (4.6)	ND (4.9) ND (4.9)	ND (4.2) ND (4.2)	ND (4.9) ND (4.9)
Total Aromatics C9-C12 Aliphatics	NC NC	mg/kg mg/ka	13.7	ND (8.4)	ND (6.7)	ND (5.3)	ND (6.8)	ND (5.6)	ND (5.3)	ND (5.0)	ND (3.9)	ND (4.9)	ND (3.5)	22	ND (6.3)	ND (5.8)	ND (5.1)	ND (5.3) ND (5.3)	ND (6.3)	ND (5.1)	ND (4.9)	ND (4.6)	ND (4.9)	ND (4.2)	ND (4.9)
C12-C16 Aliphatics	NC	mg/kg	55.5	ND (8.4)	ND (6.7)	32.4	ND (6.8)	14.7	ND (5.3)	ND (5.0)	ND (3.9)	ND (4.9)	ND (3.5)	81.3	ND (6.3)	38.8	ND (5.1)	ND (5.3)	ND (6.3)	ND (5.1)	16.7	15.2	ND (4.9)	15.6	ND (4.9)
C16-C21 Aliphatics	NC	mg/kg	76.9	37.7	ND (6.7)	64.4	21.9	28.6	ND (5.3)	ND (5.0)	9.62	ND (4.9)	ND (3.5)	106	ND (6.3)	74.3	ND (5.1)	ND (5.3)	28.2	ND (5.1)	25.6	24.3	ND (4.9)	28.5	26.3
C21-C40 Aliphatics	NC	mg/kg	150	78.7	ND (6.7)	135	45.5	64.2	ND (5.3)	35.7	17.7	ND (4.9)	ND (3.5)	152	ND (6.3)	118	ND (5.1)	ND (5.3)	65.3	ND (5.1)	25.2	33.6	ND (4.9)	49.5	81.4
Total Aliphatics	NC NC	mg/kg	296 396	116 116	ND (6.7) ND (13)	232 365	67.4 67.4	108	ND (5.3) ND (11)	35.7 35.7	27.4 27.4	ND (4.9) ND (9.7)	ND (3.5) ND (7.0)	361 477	ND (6.3) ND (13)	231 361	ND (5.1) ND (10)	ND (5.3)	93.4 93.4	ND (5.1) ND (10)	67.5 67.5	73.2 73.2	ND (4.9) ND (9.8)	93.6 93.6	108 108
Total EPH	INC.	mg/kg	390	110	ND (13)	303	67.4	100	ND (11)	33.1	21.4	ND (9.7)	ND (7.0)	411	ND (13)	301	ND (10)	ND (11)	95.4	ND (10)	67.5	13.2	ND (9.6)	93.0	106
Metals Analysis																									
Aluminum	25500	mg/kg	26900	24300	30200	19200	20200	19900	27200	10700	28500	30700	19900	19500	30700	21300	26800	21300	21700	24000	21500	9600	30700	15200	17600
Antimony	NC	mg/kg	<4.8	<6.7	<5.3	<4.2	<5.3	<4.1	<4.1	<3.6	<3.1	<3.8	<2.7	<4.0	<4.8	7.1	4.1	<4.2	<4.6	<3.7	<4.0	<3.4	<4.0	<3.6	<3.9
Arsenic	8.2	mg/kg	120	35.8	64.2	49.9 ^f	44.8	64.3 ^f	74.2 ^f	20.3	54.2 ^f	26.6	71.7	34	112	47.9 ^f	80.8	63.1	52.0 ^f	22.5	63.1 ^f	21.5	68.5	30.9	43
Barium	NC NC	mg/kg	340	180	90.9	103	152	236	64.7	67.1	319	64.5	279	121	135	244	368	66.9	179	94.3	264	51.9	121	123	121
Beryllium Cadmium	NC 1.2	mg/kg mg/kg	4.9	1.6 2.2	1.8 <1.3	1.4 <1.0	1.5 <1.3	1.5 <1.0	1.3 <1.0	0.82 1.9	2.4 0.94	1.5 <0.95	2	2.3	1.9 1.7	2.2 1.1	2.1 <2.8 ^g	0.75 <1.0	1.7 5.1	0.91 <0.93	1.3 <0.99	0.68	1.6 <0.99	2.6	1.2 3.7
Calcium	NC	mg/kg	4480	4660	2490	2160	3780	4440	1870	4570	10200	2020	3360	3410	2490	37600	4400	1520	3500	1520	2520	1360	2130	2260	3330
Chromium	81	mg/kg	194	113	71.6	69.5	87.8	102	49.3	44.1	243	49.5	91.1 ^f	73.3 ^f	97.7	96.0 ^f	226	57.9	116 ^f	47.3	60.9	40.1	87.3	58.2	72
Cobalt	50	mg/kg	15.7	<17	<13	12.3	<13	11.1	13.7	<9.0	13.2	15.2	12.3	11.2	16	12.3	16.3	<10	13.6	10.9	<9.9	<8.5	13.3	<8.9	11.3
Copper	34	mg/kg	487 59000	340 52500	116 38500	244 ^f 49000	275 50900	286 ^f 55600	37.6 ^f 55300	143 31500	85.9 ^f 56800	33.9 37800	216 ^T 38800	232 ^f 45900	390 38600	199 ^f 55400	197 ⁹ 75200	162	401 ^f 58600	61.2 29300	101 ^f 46000	139 20000	194 35800	206 29600	292 37200
Iron Lead	20000 47	mg/kg mg/kg	279	211	351	128 ^f	199	177 ^f	97.9 ^f	112	61.8 ^f	68.1	135 ^f	201	306	33400 324 ^f	369 ^g	25400 195	264 ^f	101	98.7 ^f	111	249	133	185
Magnesium	NC	ma/ka	8840	10700	9710	6420	7430	6010	8230	4420	3900	9440	4530	4870	8430	4170	4550	6380	6540	6270	3210	2320	8650	3460	5670
Manganese	630	mg/kg	419	354	396	313 ^f	251	259 ^f	492 ^f	201	211 ^f	437	275 ^f	192 ^f	313	263 ^f	173 ^g	243	233 ^f	243	151 ^f	79.3	350	173	241
Mercury	0.15	mg/kg	4.9	2.2	2.3	5.7	1.9	2	0.78	0.59	0.98	0.13	0.21	4.4	0.44	1.1	2.8	0.52	1.9	0.52	1.1	0.85	4	2	1.2
Nickel	21 NC	mg/kg	56.3 5040	51.7 5060	40.1 5420	42.9 3640	48.1 3640	45.1 3200	41.1 4640	30.3 <1800	61.4 2980	41.6 5570	36.4 2980	45.6 2680	80.8 5540	62 2700	189 3340	27.2	68 3410	28.6 4560	33.5 2030	21.8 <1700	48.3 5420	37.3 <1800	47.2 2580
Potassium Selenium	NC	mg/kg mg/kg	<9.6	<6.7	<5.3	<8.4 ^f	<5.3	<8.3 ^f	<8.2 ^f	<3.6	<9.3 ^f	<3.8	<5.4 ^f	<7.9 ^f	6	<8.5 ^f	<11 ⁹	4600 7.3	<9.2 ^f	<3.7	<7.9 ^f	<3.4	<4.0	<3.6	<3.9
Silver	1	mg/kg	4.4	2.7	<1.3	<2.1 ^f	2.3	<2.1 ^f	<2.0 ^f	<0.90	<2.3 ^f	<0.95	1.7 ^f	<2.0 f	2.1	<2.1 ^f	<2.8 ^g	1.6	<2.3 ^f	<0.93	<2.0 ^f	1.5	1.1	1.9	2.7
Sodium	NC	mg/kg	8820	16700	11600	6670	10900	8220	7770	4360	3710	8480	5840	7030	7620	7060	4300	5060	9430	4980	3430	3370	7000	2640	3950
Thallium	NC NC	mg/kg	<4.8	<3.4	<2.6	<4.2 ^f	<2.7	<4.1 ^f	<4.1 ^f	<1.8	<4.6 ^f	<1.9	<2.7 ¹	<4.0 ^f	<2.4	<4.2 ^f	<5.7 ^g	<2.1	<4.6 ^f	<1.9	<4.0 ^f	<1.7	<2.0	<1.8	<3.9 ^f
Vanadium Zinc	NC 150	mg/kg mg/kg	100 435	90 432	61.4 176	72.9 300	101 440	77 305	52.9 157	63.1 285	293 105	63.2 120	77.4 222	103 375	134 356	257 233	1420 232	71.8 90.6	178 592	61 93.5	121 115	50 209	69.1 238	78.5 335	88.7 513
ZIIIC	100	ilig/kg	100	102		555	1.10	000	107	200	•			0.0	555	200	202	30.0	002	00.0	1.10	200	200	555	0.0
											Ge	eneral Chemistry	•												
3 Inch Sieve	NC	%	100	100	100	100		100	100	100	100	100	100	100	100	100	100		100	100	100	100	100	100	100
1.5 Inch Sieve	NC	%	100	100	97.4	100	100	100	100	100	100	100	100	100	100	100	100		100	100	100	100	100	100	100
0.75 Inch Sieve	NC NC	%	100	100	97.4	100	100	100	100	84	100	100	100	100	100	100	100		100	100	96.9	100	100	100	100
0.375 Inch Sieve No.4 Sieve (4.75 mm)	NC NC	%	100	100 100	97.4 97.4	100 100	100 100	100 97.7	100 100	80 75.4	98.7 97.5	100 100	96.6 93.3	100	100 100	100 100	99 95.5		98.8 98.6	100 99.9	92.1 85.9	100 99.9	100 100	100 100	100 100
No.4 Sieve (4.75 mm) No.8 Sieve (2.36 mm)	NC NC	%	100	100	97.4	100	100	91.4	100	69.7	90.2	100	90.7	99.9	100	100	91.7		98.5	99.7	79.9	98.7	100	99.5	99.6
No.10 Sieve (2.00 mm)	NC	%	100	100	97.4	100	99.8	90	100	68.6	88.2	100	90	98.9	100	98.6	90.9		98.4	99.6	78.6	98.3	100	99.3	99.4
No.16 Sieve (1.18 mm)	NC	%	99.5	99.2	96.7	98.3	99.6	80.7	99.9	61.3	80.4	100	84.6	97.2	99.2	97.9	79.8		86.2	96.1	70.9	86.9	96.4	84.2	78.2
No.30 Sieve (0.60 mm)	NC NC	%	94.2	98.2	84.6	95.3	96.4	74.3	99.2	51.9	74.8	98.3	69.1	90.6	96.5	96.2	72.2		74.1	86.2 65.9	56.5	60.9	94.8	67.8	67.8 50.7
No.50 Sieve (0.30 mm) No.100 Sieve (0.15 mm)	NC NC	%	82.1 65	90 72.8	71.7 57.2	90.9 86.8	88 76.5	66.7 56.7	98.6 98.1	34.5 24.3	69.7 64.4	95.3 90.9	49 36.5	76.8 55.6	93.3 89.2	93.9 89.8	64.3 58.8		65.6 59.8	65.8 54.6	39.3 29.8	28	93.8 93.1	49.2 38.6	59.7 54.6
No.200 Sieve (0.075 mm)	NC	%	50.1	63.1	48.7	84.6	62.6	49.8	97.7	21.9	59	86.8	32	46.6	85.9	84.3	55.7		56.6	50.7	27.6	27	92.7	36.3	52.5
0.030 mm (Hydrometer)	NC	%	20	34	29	80	52.6	22	78	12	61	84.6	30	33	83	60	48		43	40	21	14	68	20	32
0.005 mm (Hydrometer)	NC NC	%	7	15	9	42	29	6	41	6	32	28	14	14	46	17	27		14	22	6	7	35	5	13
0.0015 mm (Hydrometer)	NC NC	%	0	5 0	2.6	27 0	7.7	0.94 2.3	19 0	4 24.6	25 2.5	80 42	11 6.7	0	20	8	19 4.5		1.4	12 0.13	4 14.1	5 0.12	15 0	0	6
% Gravel % Sand	NC NC	%	49.9	36.9	48.8	15.4	0	48	2.3	53.6	38.5	27	61.3	53.4	14.1	15.7	39.8		42	49.2	58.3	72.8	7.4	63.7	47.5
% Silt, Clay, Colloids	NC	%	50.1	63.1	48.7	84.6	47.4	49.8	97.7	21.9	59	15.4	32	46.6	85.9	84.3	55.7		56.6	50.7	27.6	27	92.7	36.3	52.5
Chloride	NC	mg/kg	2640 ^h	22000 ^h	5460 ^h	4990 ^h	14900 ^h	11100 ^h	8270 ^h	4270 ^h	4930 ^h	8360 ^h	2380 ^h	11000 ^h	7420	8710 ^g	1410		11500 ^g	1790	5250 ^g	5180 ^g	1380	749 ^h	1820 ^h
Nitrogen, Ammonia	NC NC	mg/kg	183	120	150	123	87.9	47.2	121	24.4	15.8	98.1	34	24.7	20.4	<9.3	<8.9		<10	22.8	10.4	<7.5	134	35.3	37.7
Nitrogen, Nitrate	NC NC	mg/l	- <39 ¹	209 ¹	44.9	- <42 ⁱ	- <50 ⁱ	92.5 1	- <38 ¹	74.6	- <31 ¹	- <38 ¹	45.6	231	74.4 ^j	- <42 ¹	- 39.2 j		- 129 ⁱ	- <38 ^j	- <41 ⁱ	- <35 ⁱ	58.3 ^j	36.4 ¹	- <39 ⁱ
Nitrogen, Nitrate Nitrogen, Nitrate + Nitrite	NC NC	mg/kg mg/kg	<39	209	44.9	<42	<50 ·	92.5	<38	74.6	<31	<38	45.6 45.6	231	74.4	<42 <42	39.2		130	<38	<41	<35	58.3	36.9	<39
Nitrogen, Nitrite	NC	mg/kg	<0.39	<0.66	<0.36	<0.39	<0.48	<0.42	<0.38	<0.37	<0.31	0.45	<0.26	1.5	<0.47	0.47	<0.37		0.79	<0.38	1.1	0.43	<0.37	0.55	0.73
Solids, Percent	NC	%	48.7	29.7	52.9	48.8	39.3	46.4	50.5	53.2	64	51.4	74.3	48.4	40.3	46.2	52		41.5	51.7	50.4	57.4	51.1	59.3	49.7
Total Organic Carbon	NC	mg/kg	20300	46100	25200	49900	49400	91100	21700	23000	88400	23200	15400	48700	52100	85500	41200		58500	27900	22300	18100	28800	28000	37000
pН	NC	su	7.97	7.77	7.08	7.17	7.83	7.8	7.72	8.15	7.91	8.06	7.57	7.57	7.62	7.33	7.73		7.39	7.42	6.83	6.86	7.79	8.05	7.89

Prounties:

a Associated CCV outside of control limits high, sample was ND.

b Associated CCV outside of control limits low.

c Associated CCV outside of control limits high, sample was ND.

d Associated CCV outside of control limits high.

d Associated CCV outside of control limits high.

e Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.

f Elevated detection limit due to dilution required for high interfering element.

g Sample analyzed beyond hold time. Associated blank is > RL, however, sample result is > 10X blank concentration. Analysis performed at SGS Orlando, FL.

h Analysis performed at SGS Orlando, FL.

i Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

j Multiple injections indicate possible sample non-homogeneity.

k Analysis done out of holding time.

1Screening criterion is USEPA Region 3 Biological Technical Assistance Group marine sediment screening benchmark (USEPA 2015).

NC:
BLUE:
GREEN:
ORANGE: No Criteria Compound Detected, No Criteria Compound Detected, Non-Toxic Exceedance, Result > Criteria

Client Sample ID:				SB-1M	SB-1B	SB-2M	SB-2B	SB-3M	SB-3B	SB-4M	SB-4B	SB-5M	SB-5B	SB-6M	SB-6B	SB-7M	SB-7B	SB-8M	SB-8B	SB-9M	SB-9B	SB-10M	SB-10B	SB-11M	SB-11B	SB-12M	SB-12B
Sample Depth (ft.)	NJ Non- Residential Direct	NJ Residential t Direct Contact		2.5-3.0	5.5-6.0	2.5-3.0	5.0-5.4	3.5-4.0	7.0-7.5	1.5-2.0	3.5-4.0	3.5-4.0	7.0-7.5	3.5-4.0	6.5-7.0	2.5-3.0	5.5-6.0	3.5-4.0	6.0-6.5	3.5-4.0	6.5-7.0	3.5-4.0	6.5-7.0	3.5-4.0	6.5-7.0	3.5-4.0	6.5-7.0
Date Sampled:	Contact Soil	Soil		11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Volatiles (SW846 8260C)																											
Acetone	NA	70000	mg/kg	0.0461	0.0289	ND (0.47)	0.0854	0.035	0.0302	ND (1.2)	0.54	0.0459 J	0.0299 J	0.0257	0.0377	0.081	0.0522	0.0606	0.0223 J	0.0385 J	0.0299	ND (0.43)	0.0586	ND (1.1)	0.0334	0.0482 J	0.0589 J
Benzene	5	2	mg/kg	0.0042	ND (0.00087)	ND (0.035)	0.0017	ND (0.0010)	ND (0.00094)	11.8	0.279	ND (0.0028)	ND (0.0011)	ND (0.00078)	ND (0.00087)	0.0872	0.0436	0.0015 J	ND (0.0011)	0.0269	ND (0.0010)	ND (0.032)	0.0026	12.6	0.0093	ND (0.0034)	ND (0.0030)
Bromochloromethane Bromodichloromethane	3	1	mg/kg mg/kg	ND (0.0011) ND (0.0011)	ND (0.0010) ND (0.0010)	ND (0.040) ND (0.041)	ND (0.0010) ND (0.0011)	ND (0.0012) ND (0.0012)	ND (0.0011) ND (0.0011)	ND (0.10) ND (0.10)	ND (0.0011) ND (0.0012)	ND (0.0032) ND (0.0033)	ND (0.0013) ND (0.0013)	ND (0.00089) ND (0.00092)	ND (0.0010) ND (0.0010)	ND (0.0021) ND (0.0021)	ND (0.0015) ND (0.0015)	ND (0.0017) ND (0.0017)	ND (0.0012) ND (0.0012)	ND (0.0019) ND (0.0020)	ND (0.0012) ND (0.0012)	ND (0.037) ND (0.038)	ND (0.00082) ND (0.00085)	ND (0.096) ND (0.098)	ND (0.0010) ND (0.0011)	ND (0.0039) ND (0.0040)	ND (0.0034) ND (0.0036)
Bromoform	280	81	mg/kg	ND (0.0011)	ND (0.00093)	ND (0.038)	ND (0.00096)	ND (0.0012)	ND (0.0011)	ND (0.10)	ND (0.0012)	ND (0.0030)	ND (0.0012)	ND (0.00084)	ND (0.00094)	ND (0.0021)	ND (0.0013)	ND (0.0016)	ND (0.0012)	ND (0.0018)	ND (0.0012)	ND (0.034)	ND (0.00077)	ND (0.090)	ND (0.00098)	ND (0.0036)	ND (0.0032)
Bromomethane	59	25	mg/kg	ND (0.0026)	ND (0.0023)	ND (0.093)	ND (0.0024)	ND (0.0027)	ND (0.0025)	ND (0.23)	ND (0.0026)	ND (0.0074)	ND (0.0030)	ND (0.0021)	ND (0.0023)	ND (0.0048)	ND (0.0034)	ND (0.0039)	ND (0.0028)	ND (0.0045) ^a	ND (0.0027) ^e	ND (0.085)	ND (0.0019) ^a	ND (0.22)	ND (0.0024) ^e	ND (0.0089)	ND (0.0080) ^a
2-Butanone (MEK)	44000	3100	mg/kg	ND (0.0096)	ND (0.0087)	ND (0.35)	0.0171 J	ND (0.010)	ND (0.0093)	ND (0.87)	0.0246 J	ND (0.028)	ND (0.011)	ND (0.0078)	ND (0.0087)	ND (0.018)	ND (0.013)	ND (0.015)	ND (0.010)	ND (0.017)	0.0102 J	ND (0.32)	0.0130 J	ND (0.83)	ND (0.0091)	ND (0.034)	ND (0.030)
Carbon disulfide	110000	7800	mg/kg	ND (0.0024)	ND (0.0022)	ND (0.087)	0.0023 J	0.0035 J	0.0056	ND (0.22)	0.0040 J	0.0515	0.0142	0.0051	0.0086	0.0125	0.0112	0.0211	0.0093	ND (0.0042)	0.0139	ND (0.079)	ND (0.0018)	ND (0.21)	0.0045 J	0.026	0.0308
Carbon tetrachloride	4	2	mg/kg	ND (0.0014)	ND (0.0013)	ND (0.051)	ND (0.0013)	ND (0.0015)	ND (0.0014)	ND (0.13)	ND (0.0014)	ND (0.0041)	ND (0.0017)	ND (0.0011)	ND (0.0013)	ND (0.0027)	ND (0.0019)	ND (0.0021)	ND (0.0015)	ND (0.0025)	ND (0.0015)	ND (0.047)	ND (0.0011)	ND (0.12)	ND (0.0013)	ND (0.0049)	ND (0.0044)
Chlorobenzene	7400	510	mg/kg	0.0142	ND (0.00082)	ND (0.033)	0.0127	ND (0.00095)	ND (0.00088)	0.0885 J	0.0102	ND (0.0026)	ND (0.0011)	ND (0.00074)	ND (0.00082)	ND (0.0017)	ND (0.0012)	ND (0.0014)	ND (0.00099)	ND (0.0016)	ND (0.00095)	ND (0.030)	0.00098 J	0.823	ND (0.00086)	ND (0.0032)	ND (0.0028)
Chloroethane	1100	220	mg/kg	ND (0.0018)	ND (0.0016)	ND (0.064)	ND (0.0016)	ND (0.0019)	ND (0.0017)	ND (0.16)	ND (0.0018)	ND (0.0051)	ND (0.0021)	ND (0.0014)	ND (0.0016)	ND (0.0033)	ND (0.0023)	ND (0.0027)	ND (0.0019)	ND (0.0031) ^a	ND (0.0018) ^a	ND (0.058)	ND (0.0013) ^a	ND (0.15)	ND (0.0017) a	ND (0.0062)	ND (0.0055) ^a
Chloroform	2	0.6	mg/kg	ND (0.00095)	ND (0.00086)	ND (0.035)	ND (0.00089)	ND (0.0010)	ND (0.00093)	ND (0.086)	ND (0.00098)	ND (0.0027)	ND (0.0011)	ND (0.00077)	ND (0.00086)	ND (0.0018)	ND (0.0013)	ND (0.0014)	ND (0.0010)	ND (0.0017)	ND (0.0010)	ND (0.032)	ND (0.00071)	ND (0.083)	ND (0.00090)	ND (0.0033)	ND (0.0030)
Chloromethane Cyclohexane	12	4	mg/kg mg/kg	ND (0.0050) 0.0022 J	ND (0.0045) ND (0.00094)	ND (0.18) 0.557	ND (0.0047) 0.0076	ND (0.0053) 0.0013 J	ND (0.0049) ND (0.0010)	ND (0.45) 5.25	ND (0.0051) 0.0326	ND (0.014) ND (0.0030)	ND (0.0059) ND (0.0012)	ND (0.0041) ND (0.00084)	ND (0.0045) 0.0042 J	ND (0.0095) 0.0576	ND (0.0066) 0.0164	ND (0.0076) ND (0.0016)	ND (0.0055) ND (0.0011)	ND (0.0088) 0.0107	ND (0.0053) ND (0.0011)	ND (0.17) 0.166 J	ND (0.0037) 0.005	ND (0.44) 22.8	ND (0.0048) 0.0243	ND (0.018) ND (0.0036)	ND (0.016) ND (0.0033)
1,2-Dibromo-3-chloropropane	0.2	0.08	mg/kg	ND (0.0021)	ND (0.0019)	ND (0.078)	ND (0.0020)	ND (0.0023)	ND (0.0010)	ND (0.19)	ND (0.0022)	ND (0.0050)	ND (0.0012)	ND (0.00017)	ND (0.0019)	ND (0.0040)	ND (0.0028)	ND (0.0010)	ND (0.0011)	ND (0.0038)	ND (0.0022)	ND (0.071)	ND (0.0016)	ND (0.19)	ND (0.0020)	ND (0.0075)	ND (0.0067)
Dibromochloromethane	8	3	mg/kg	ND (0.00087)	ND (0.00078)	ND (0.032)	ND (0.00081)	ND (0.00091)	ND (0.00084)	ND (0.078)	ND (0.00089)	ND (0.0025)	ND (0.0010)	ND (0.00070)	ND (0.00078)	ND (0.0016)	ND (0.0011)	ND (0.0013)	ND (0.00095)	ND (0.0015)	ND (0.00091)	ND (0.029)	ND (0.00065)	ND (0.075)	ND (0.00082)	ND (0.0030)	ND (0.0027)
1,2-Dibromoethane	0.04	0.008	mg/kg	ND (0.00083)	ND (0.00075)	ND (0.030)	ND (0.00077)	ND (0.00088)	ND (0.00081)	ND (0.075)	ND (0.00085)	ND (0.0024)	ND (0.00098)	ND (0.00067)	ND (0.00075)	ND (0.0016)	ND (0.0011)	ND (0.0013)	ND (0.00091)	ND (0.0015)	ND (0.00087)	ND (0.028)	ND (0.00062)	ND (0.072)	ND (0.00079)	ND (0.0029)	ND (0.0026)
1,2-Dichlorobenzene	59000	5300	mg/kg	0.0017 J	ND (0.00071)	ND (0.028)	0.0029	ND (0.00082)	ND (0.00076)	0.305	0.0083	ND (0.0023)	ND (0.00092)	ND (0.00063)	ND (0.00071)	ND (0.0015)	ND (0.0010)	ND (0.0012)	ND (0.00086)	ND (0.0014)	ND (0.00082)	0.0315 J	ND (0.00058)	2.62	0.00086 J	ND (0.0027)	ND (0.0024)
1,3-Dichlorobenzene	59000	5300	mg/kg	0.0078	ND (0.00083)	ND (0.034)	0.0063	ND (0.00097)	ND (0.00090)	ND (0.083)	0.0063	ND (0.0027)	ND (0.0011)	ND (0.00075)	ND (0.00083)	ND (0.0017)	ND (0.0012)	ND (0.0014)	ND (0.0010)	ND (0.0016)	ND (0.00096)	ND (0.031)	ND (0.00069)	0.309	ND (0.00087)	ND (0.0032)	ND (0.0029)
1,4-Dichlorobenzene	13	5	mg/kg	0.0186	ND (0.00080)	ND (0.032)	0.0237	ND (0.00093)	ND (0.00086)	ND (0.080)	0.0228	ND (0.0025)	ND (0.0010)	ND (0.00071)	ND (0.00080)	ND (0.0017)	ND (0.0012)	ND (0.0013)	ND (0.00097)	ND (0.0016)	ND (0.00092)	0.0589 J	ND (0.00066)	0.641	ND (0.00084)	ND (0.0031)	ND (0.0028)
Dichlorodifluoromethane	230000	490	mg/kg	ND (0.0016)	ND (0.0015)	ND (0.059) a	ND (0.0015)	ND (0.0017)	ND (0.0016)	ND (0.15) a	ND (0.0017)	ND (0.0047)	ND (0.0019)	ND (0.0013)	ND (0.0015)	ND (0.0031)	ND (0.0021)	ND (0.0025)	ND (0.0018)	ND (0.0029)	ND (0.0017)	ND (0.054)	ND (0.0012)	ND (0.14)	ND (0.0015)	ND (0.0057)	ND (0.0051)
1,1-Dichloroethane 1,2-Dichloroethane	24	0.9	mg/kg mg/kg	ND (0.00099) ND (0.0012)	ND (0.00089) ND (0.0011)	ND (0.036) ND (0.044)	ND (0.00092) ND (0.0011)	ND (0.0010) ND (0.0013)	ND (0.00096) ND (0.0012)	ND (0.089) ND (0.11)	ND (0.0010) ND (0.0012)	ND (0.0028) ND (0.0035)	ND (0.0012) ND (0.0014)	ND (0.00080) ND (0.00098)	ND (0.00089) ND (0.0011)	ND (0.0019) ND (0.0023)	ND (0.0013) ND (0.0016)	ND (0.0015) ND (0.0018)	ND (0.0011) ND (0.0013)	ND (0.0017) ND (0.0021)	ND (0.0010) ND (0.0013)	ND (0.033) ND (0.040)	ND (0.00074) ND (0.00090)	ND (0.086) ND (0.10)	ND (0.00094) ND (0.0011)	ND (0.0035) ND (0.0042)	ND (0.0031) ND (0.0038)
1,1-Dichloroethene	150	11	mg/kg	ND (0.0012)	ND (0.0011)	ND (0.061)	ND (0.0016)	ND (0.0018)	ND (0.0012)	ND (0.11)	ND (0.0012)	ND (0.0033)	ND (0.0020)	ND (0.0014)	ND (0.0015)	ND (0.0023)	ND (0.0010)	ND (0.0025)	ND (0.0018)	ND (0.0021)	ND (0.0018)	ND (0.056)	ND (0.0013)	ND (0.15)	ND (0.0011)	ND (0.0059)	ND (0.0053)
cis-1,2-Dichloroethene	560	230	mg/kg	ND (0.0025)	ND (0.0022)	ND (0.089)	ND (0.0023)	ND (0.0026)	ND (0.0024)	ND (0.22)	0.0063	ND (0.0071)	ND (0.0029)	ND (0.0020)	ND (0.0022)	ND (0.0046)	ND (0.0032)	ND (0.0037)	ND (0.0027)	ND (0.0043)	ND (0.0026)	ND (0.081)	ND (0.0018)	ND (0.21)	ND (0.0023)	ND (0.0086)	ND (0.0077)
trans-1,2-Dichloroethene	720	300	mg/kg	ND (0.0017)	ND (0.0015)	ND (0.062)	ND (0.0016)	ND (0.0018)	ND (0.0017)	ND (0.15)	ND (0.0017)	ND (0.0049)	ND (0.0020)	ND (0.0014)	ND (0.0015)	ND (0.0032)	ND (0.0023)	ND (0.0026)	ND (0.0019)	ND (0.0030)	ND (0.0018)	ND (0.057)	ND (0.0013)	ND (0.15)	ND (0.0016)	ND (0.0060)	ND (0.0053)
1,2-Dichloropropane	5	2	mg/kg	ND (0.0010)	ND (0.00094)	ND (0.038)	ND (0.00097)	ND (0.0011)	ND (0.0010)	ND (0.094)	ND (0.0011)	ND (0.0030)	ND (0.0012)	ND (0.00085)	ND (0.00094)	ND (0.0020)	ND (0.0014)	ND (0.0016)	ND (0.0011)	ND (0.0018)	ND (0.0011)	ND (0.035)	ND (0.00078)	ND (0.090)	ND (0.00099)	ND (0.0036)	ND (0.0033)
cis-1,3-Dichloropropene	7	2	mg/kg	ND (0.00090)	ND (0.00082)	ND (0.033)	ND (0.00084)	ND (0.00095)	ND (0.00088)	ND (0.082)	ND (0.00092)	ND (0.0026)	ND (0.0011)	ND (0.00073)	ND (0.00082)	ND (0.0017)	ND (0.0012)	ND (0.0014)	ND (0.00099)	ND (0.0016)	ND (0.00094)	ND (0.030)	ND (0.00067)	ND (0.078)	ND (0.00086)	ND (0.0032)	ND (0.0028)
trans-1,3-Dichloropropene	7	2	mg/kg	ND (0.00084)	ND (0.00076)	ND (0.031)	ND (0.00078)	ND (0.00088)	ND (0.00082)	ND (0.076)	ND (0.00086)	ND (0.0024)	ND (0.00099)	ND (0.00068)	ND (0.00076)	ND (0.0016)	ND (0.0011)	ND (0.0013)	ND (0.00092)	ND (0.0015)	ND (0.00088)	ND (0.028)	ND (0.00062)	ND (0.073)	ND (0.00079)	ND (0.0029)	ND (0.0026)
Ethylbenzene	110000	7800	mg/kg	ND (0.0014)	ND (0.0013)	ND (0.052)	ND (0.0013)	ND (0.0015)	ND (0.0014)	0.333	0.0016 J	ND (0.0041)	ND (0.0017)	ND (0.0011)	ND (0.0013)	0.0092	0.0021 J	ND (0.0021)	ND (0.0015)	ND (0.0025)	ND (0.0015)	ND (0.047)	0.0037	35.1	0.0207	ND (0.0049)	ND (0.0044)
Freon 113 2-Hexanone	-	-	mg/kg	ND (0.0020) ND (0.0033)	ND (0.0018) ND (0.0029)	ND (0.071) ND (0.12)	ND (0.0018) ND (0.0030)	ND (0.0021) ND (0.0034)	ND (0.0019) ND (0.0032)	ND (0.18) ND (0.29)	ND (0.0020) ND (0.0033)	ND (0.0056) ND (0.0094)	ND (0.0023) ND (0.0038)	ND (0.0016) ND (0.0026)	ND (0.0018) ND (0.0029)	ND (0.0037) ND (0.0062)	ND (0.0026) ND (0.0043)	ND (0.0030) ND (0.0049)	ND (0.0021) ND (0.0036)	ND (0.0034) ND (0.0057)	ND (0.0020) ND (0.0034)	ND (0.065) ND (0.11)	ND (0.0015) ND (0.0024)	ND (0.17) ND (0.28)	ND (0.0019) ND (0.0031)	ND (0.0068) ND (0.011)	ND (0.0061) ND (0.010)
Isopropylbenzene	-	-	mg/kg mg/kg	0.0026 J	ND (0.0029)	0.791	0.0045 J	ND (0.0034)	ND (0.0032)	3.29	0.0086	ND (0.0094)	ND (0.0036)	ND (0.0026)	ND (0.0029)	0.0339	ND (0.0043)	ND (0.0049)	ND (0.0038)	ND (0.0031)	ND (0.0034)	0.0820 J	ND (0.0024)	9.96	0.0051	ND (0.0062)	ND (0.0056)
Methyl Acetate	NA	78000	mg/kg	ND (0.0036)	ND (0.0032)	ND (0.13)	ND (0.0033)	ND (0.0037)	ND (0.0035)	ND (0.32)	ND (0.0036)	ND (0.010)	ND (0.0042)	ND (0.0029)	ND (0.0032)	ND (0.0067)	ND (0.0047)	ND (0.0054)	ND (0.0039)	ND (0.0063)	ND (0.0037)	ND (0.12)	ND (0.0027)	ND (0.31)	ND (0.0034)	ND (0.012)	ND (0.011)
Methylcyclohexane	-	-	mg/kg	0.0097	0.0017 J	3.15	0.0131	ND (0.0019)	ND (0.0018)	21.1	0.0416	ND (0.0052)	ND (0.0021)	ND (0.0015)	0.0123	0.0337	ND (0.0024)	ND (0.0027)	ND (0.0020)	ND (0.0032)	ND (0.0019)	0.896	0.0121	83	0.0575	ND (0.0063)	ND (0.0057)
Methyl Tert Butyl Ether	320	110	mg/kg	0.0237	0.0019 J	ND (0.033)	0.0016 J	0.0014 J	ND (0.00088)	2.21	0.298	ND (0.0026)	ND (0.0011)	0.0054	0.00094 J	0.0204	0.0158	0.0023 J	ND (0.00099)	0.0016 J	ND (0.00094)	ND (0.030)	ND (0.00067)	ND (0.078)	ND (0.00086)	ND (0.0032)	ND (0.0028)
4-Methyl-2-pentanone(MIBK)	-	-	mg/kg	ND (0.0040)	ND (0.0036)	ND (0.15)	ND (0.0037)	ND (0.0042)	ND (0.0039)	ND (0.36)	ND (0.0041)	ND (0.012)	ND (0.0047)	ND (0.0032)	ND (0.0036)	ND (0.0076)	ND (0.0053)	ND (0.0061)	ND (0.0044)	ND (0.0070)	ND (0.0042)	ND (0.13)	ND (0.0030)	ND (0.35)	ND (0.0038)	ND (0.014)	ND (0.013)
Methylene chloride	230	46	mg/kg	ND (0.0064)	ND (0.0058)	ND (0.23)	ND (0.0060)	ND (0.0067)	ND (0.0062)	ND (0.58)	ND (0.0066)	ND (0.018)	ND (0.0076)	ND (0.0052)	ND (0.0058)	ND (0.012)	ND (0.0085)	ND (0.0097)	ND (0.0070)	ND (0.011)	ND (0.0067)	ND (0.21)	ND (0.0048)	ND (0.56)	ND (0.0061)	ND (0.022)	ND (0.020)
Styrene	260	90	mg/kg	ND (0.0015)	ND (0.0013)	ND (0.054)	ND (0.0014)	ND (0.0015)	ND (0.0014)	ND (0.13)	ND (0.0015)	ND (0.0042)	ND (0.0017)	ND (0.0012)	ND (0.0013)	ND (0.0028)	ND (0.0019)	ND (0.0022)	ND (0.0016)	ND (0.0026)	ND (0.0015)	ND (0.049)	ND (0.0011)	ND (0.13)	ND (0.0014)	ND (0.0052)	ND (0.0046)
1,1,2,2-Tetrachloroethane Tetrachloroethene	3 1500	1 43	mg/kg mg/kg	ND (0.0010) ND (0.0012)	ND (0.00090) ND (0.0011)	ND (0.036) ND (0.043)	ND (0.00093) ND (0.0011)	ND (0.0011) ND (0.0012)	ND (0.00097) ND (0.0012)	ND (0.090) ND (0.11)	ND (0.0010) ND (0.0012)	ND (0.0029) ND (0.0034)	ND (0.0012) ND (0.0014)	ND (0.00081) ND (0.00096)	ND (0.00091) ND (0.0011)	ND (0.0019) ND (0.0022)	ND (0.0013) ND (0.0016)	ND (0.0015) ND (0.0018)	ND (0.0011) ND (0.0013)	ND (0.0018) ND (0.0021)	ND (0.0010) ND (0.0012)	ND (0.033) ND (0.039)	ND (0.00075) ND (0.00088)	ND (0.087) ND (0.10)	ND (0.00095) ND (0.0011)	ND (0.0035) ND (0.0041)	ND (0.0031) ND (0.0037)
Toluene	91000	6300	mg/kg	ND (0.0012) ND (0.00096)	ND (0.0011) ND (0.00087)	ND (0.043)	0.00093 J	ND (0.0012) ND (0.0010)	ND (0.0012)	ND (0.11) 0.341	0.0041	ND (0.0034) ND (0.0028)	ND (0.0014)	ND (0.00096)	ND (0.0011) ND (0.00087)	0.0031 J	ND (0.0016) ND (0.0013)	ND (0.0018)	ND (0.0013)	0.0024 J	0.0018 J	ND (0.039)	0.00091 J	ND (0.10)	0.0038	ND (0.0041)	ND (0.0037)
1,2,3-Trichlorobenzene	-	-	mg/kg	ND (0.0026)	ND (0.0023)	ND (0.093)	ND (0.0024)	ND (0.0027)	ND (0.0025)	ND (0.23)	ND (0.0026)	ND (0.0024)	ND (0.0030)	ND (0.0021)	ND (0.0023)	ND (0.0048)	ND (0.0034)	ND (0.0039)	ND (0.0028)	ND (0.0045)	ND (0.0027)	ND (0.085)	ND (0.0019)	ND (0.22)	ND (0.0024)	ND (0.0090)	ND (0.0080)
1,2,4-Trichlorobenzene	820	73	mg/kg	ND (0.0026)	ND (0.0023)	ND (0.093)	ND (0.0024)	ND (0.0027)	ND (0.0025)	0.268 J	ND (0.0026)	ND (0.0074)	ND (0.0030)	ND (0.0021)	ND (0.0023)	ND (0.0048)	ND (0.0034)	ND (0.0039)	ND (0.0028)	ND (0.0045)	ND (0.0027)	ND (0.085)	ND (0.0019)	0.390 J	ND (0.0024)	ND (0.0090)	ND (0.0080)
1,1,1-Trichloroethane	NA	160000	mg/kg	ND (0.0011)	ND (0.00099)	ND (0.040)	ND (0.0010)	ND (0.0011)	ND (0.0011)	ND (0.099)	ND (0.0011)	ND (0.0031)	ND (0.0013)	ND (0.00088)	ND (0.00099)	ND (0.0021)	ND (0.0014)	ND (0.0017)	ND (0.0012)	ND (0.0019)	ND (0.0011)	ND (0.036)	ND (0.00081)	ND (0.095)	ND (0.0010)	ND (0.0038)	ND (0.0034)
1,1,2-Trichloroethane	6	2	mg/kg	ND (0.00088)	ND (0.00079)	ND (0.032)	ND (0.00081)	ND (0.00092)	ND (0.00085)	ND (0.079)	ND (0.00090)	ND (0.0025)	ND (0.0010)	ND (0.00071)	ND (0.00079)	ND (0.0017)	ND (0.0012)	ND (0.0013)	ND (0.00096)	ND (0.0015)	ND (0.00092)	ND (0.029)	ND (0.00065)	ND (0.076)	ND (0.00083)	ND (0.0031)	ND (0.0027)
Trichloroethene	10	3	mg/kg	ND (0.0020)	ND (0.0018)	ND (0.071)	ND (0.0018)	ND (0.0021)	ND (0.0019)	ND (0.18)	ND (0.0020)	ND (0.0056)	ND (0.0023)	ND (0.0016)	ND (0.0018)	ND (0.0037)	ND (0.0026)	ND (0.0030)	ND (0.0021)	ND (0.0034)	ND (0.0020)	ND (0.065)	ND (0.0015)	ND (0.17)	ND (0.0019)	ND (0.0068)	ND (0.0061)
Trichlorofluoromethane	340000	23000	mg/kg	ND (0.0017)	ND (0.0016)	ND (0.064)	ND (0.0016)	ND (0.0018)	ND (0.0017)	ND (0.16)	ND (0.0018)	ND (0.0050)	ND (0.0021)	ND (0.0014)	ND (0.0016)	ND (0.0033)	ND (0.0023)	ND (0.0026)	ND (0.0019)	ND (0.0031)	ND (0.0018)	ND (0.058)	ND (0.0013)	ND (0.15)	ND (0.0017)	ND (0.0061)	ND (0.0055)
Vinyl chloride	2	0.7	mg/kg	ND (0.0012)	ND (0.0011)	ND (0.044) ^a	ND (0.0011)	ND (0.0013)	ND (0.0012)	ND (0.11) a	ND (0.0012)	ND (0.0035)	ND (0.0014)	ND (0.00097)	ND (0.0011)	ND (0.0023)	ND (0.0016)	ND (0.0018)	ND (0.0013)	ND (0.0021)	ND (0.0013)	ND (0.040)	ND (0.00090)	ND (0.10)	ND (0.0011)	ND (0.0042) ^f	ND (0.0038)
m,p-Xylene o-Xylene	170000 170000	12000	mg/kg mg/kg	0.0127	ND (0.0017) ND (0.0014)	ND (0.070) 0.0682 J	0.0031 0.0020 J	ND (0.0020) ND (0.0016)	ND (0.0019) ND (0.0015)	1.64 0.422	0.0117	ND (0.0055) ND (0.0043)	ND (0.0023) ND (0.0018)	ND (0.0015) ND (0.0012)	ND (0.0017) ND (0.0014)	0.0058 ND (0.0028)	ND (0.0025) ND (0.0020)	ND (0.0029) ND (0.0023)	ND (0.0021) ND (0.0016)	ND (0.0034) ND (0.0026)	ND (0.0020) ND (0.0016)	0.122 ND (0.050)	0.0112	144 38.6	0.077	ND (0.0067) ND (0.0052)	ND (0.0060) ND (0.0047)
Xylene (total)	170000	12000	mg/kg	0.0074	ND (0.0014)	0.0682 J	0.0020 3	ND (0.0016)	ND (0.0015)	2.06	0.0069	ND (0.0043)	ND (0.0018)	ND (0.0012)	ND (0.0014)	0.0058	ND (0.0020)	ND (0.0023)	ND (0.0016)	ND (0.0026)	ND (0.0016)	0.122	0.0092	183	0.0197	ND (0.0052)	ND (0.0047)
(coun)			g.ng		AD (0.0014)			145 (0.0010)	140 (0.0010)			140 (0.0040)	110 (0.0010)	115 (0.0012)	(0.0014)	*****	142 (0.0020)	(0.0020)	160 (0.0010)	110 (0.0020)	110 (0.0010)					145 (0.0002)	.45 (0.0047)
MS Volatile TIC																											
Total TIC, Volatile	-	-	mg/kg	0.196 J	0	119.3 J	0.292 J	0	0	209 J	6.481 J	0	0	0	0	0.071 J	0	0	0	0.023 J	0	23.5 J	0.114 J	46 J	0.464 J	0	0
Total Alkanes	-	-	mg/kg	0.048 J	0	6 J	0.03 J	0	0	52 J	0.55 J	0	0	0	0	0	0	0	0	0	0	4.2 J	0.133 J	343 J	0.093 J	0	0
				·	·	·	·												·	·		·	· · · · · · · · · · · · · · · · · · ·		·	·	

Table 7.5 Detention Basin Deep Sediment Screening Former Hess Port Reading Terminal Site Port Reading New Jersey

Conting																												
		N.I.Non-	N.I Residenti													1 1		-										
THE PARTY NAME NAME NAME NAME NAME NAME NAME NAME		Residential Direc	t Direct Contac	it																								
The column		Contact Soil	3011																		1 1							
The column																												
Control Cont	MS Semi-volatiles (SW846 8270D)																											
The first part of the control of the	2-Chlorophenol	2200	310	mg/kg	ND (0.038)	ND (0.032)	ND (0.12)	ND (0.031)	ND (0.034)	ND (0.031)	ND (0.34)	ND (0.029)	ND (0.078)	ND (0.033)	ND (0.029)	ND (0.031)	ND (0.048)	ND (0.033)	ND (0.040)	ND (0.035)	ND (0.050)	ND (0.034)	ND (0.021)	ND (0.024)	ND (0.19)	ND (0.033)	ND (0.099)	ND (0.084)
March Marc	4-Chloro-3-methyl phenol	-	-		ND (0.047)	ND (0.039)	ND (0.15)	ND (0.039)	ND (0.042)	ND (0.038)	ND (0.43)	ND (0.036)	ND (0.097)	ND (0.041)	ND (0.036)	ND (0.039)	ND (0.060)	ND (0.041)	ND (0.049)	ND (0.043)	ND (0.063)	ND (0.042)	ND (0.026)	ND (0.029)	ND (0.23)	ND (0.041)	ND (0.12)	ND (0.10)
State Stat	2,4-Dichlorophenol	2100	180	mg/kg	ND (0.065)	ND (0.054)	ND (0.20)	ND (0.054)	ND (0.059)	ND (0.053)	ND (0.60)	ND (0.050)	ND (0.14)	ND (0.057)	ND (0.051)	ND (0.054)	ND (0.084)	ND (0.057)	ND (0.069)	ND (0.060)	ND (0.087)	ND (0.058)	ND (0.037)	ND (0.041)	ND (0.32)	ND (0.057)	ND (0.17)	ND (0.14)
The column	2,4-Dimethylphenol											(* - 7		. ,			(,		1 1			V. /	V /			. ,		
March Marc					,	. ,	(. ,	(* -7	(,	,		(,		. ,	. ,	(,	(,	(,		(/			,	` ,			, , ,
Column	**				(, , ,		,	(,		((7	(, , , ,		(, , ,	(****/		(- ,	(,	()		(,	,,,,	(/	(/		V ,	. ,	
Part	3&4-Methylphenol	-	-	mg/kg	ND (0.063)		ND (0.20)	0.0879 J		ND (0.051)		ND (0.048)		ND (0.055)	ND (0.049)		ND (0.081)	1	ND (0.066)		ND (0.084)	ND (0.056)	+	ND (0.039)		ND (0.055)	ND (0.16)	ND (0.14)
1	2-Nitrophenol	-	-	mg/kg	ND (0.051)	ND (0.042)	ND (0.16)	ND (0.042)	ND (0.046)	ND (0.041)	ND (0.46)	ND (0.039)	ND (0.11)	ND (0.044)	ND (0.039)	ND (0.042)	ND (0.065)	ND (0.044)	ND (0.053)	ND (0.046)	ND (0.067)	ND (0.045)	ND (0.028)	ND (0.031)	ND (0.25)	ND (0.044)	ND (0.13)	ND (0.11)
	4-Nitrophenol	-	-	mg/kg	ND (0.20)	ND (0.17)	ND (0.64)	ND (0.17)	ND (0.19)	ND (0.17)	ND (1.9)	ND (0.16)	ND (0.42)	ND (0.18)	ND (0.16)	ND (0.17)	ND (0.26)	ND (0.18)	ND (0.21)	ND (0.19)	ND (0.27)	ND (0.18)	ND (0.11) ^f	ND (0.13) ^f	ND (1.0)	ND (0.18)	ND (0.54)	ND (0.45)
19	Pentachlorophenol				,	(,		(,	(/	(/	((, , , , ,	(7	(, , , ,	(/	(,	(,	()	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			(,	(/	(,			
Martine Mart	Phenol 2.3.4.6-Tetrachlorophenol	210000	18000																		(,	(,			,	(,		, ,
Mary	2,4,5-Trichlorophenol	68000	6100				(,	(, , ,		,		(/	. ,	(* /	(,		(,	1	(,,,,,		(,	, , , ,	+	,,,,,				(,
	2,4,6-Trichlorophenol	74			ND (0.046)	ND (0.038)	ND (0.14)	ND (0.038)	ND (0.041)	ND (0.037)	ND (0.42)	ND (0.035)	ND (0.095)	ND (0.040)	ND (0.035)	ND (0.038)	ND (0.058)	ND (0.040)	ND (0.048)	ND (0.042)	ND (0.061)	ND (0.040)	ND (0.026)	ND (0.028)	ND (0.22)	ND (0.040)	ND (0.12)	ND (0.10)
Secretary 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Acenaphthene	37000	3400	mg/kg	0.114	ND (0.022)	2.12	0.0355 J	ND (0.024)	ND (0.021)	3.35	0.25	ND (0.055)	ND (0.023)	ND (0.021)	ND (0.022)	ND (0.034)	ND (0.023)	ND (0.028)	ND (0.024)	ND (0.035)	ND (0.023)	0.144	0.0195 J	5.4	ND (0.023)	ND (0.069)	ND (0.058)
The column	Acenaphthylene						+	_							1 1	+		1				1 1						
Marchane	Acetophenone Anthracene				(,			(,		1 1		(,		(, , ,	(,				, , ,		(, , ,			,				
Marchan Marc	Atrazine			5 5		(,	(,			(,	(,		(, , , ,	(, , ,	(,	(,	(,	(/	(*****)	(,	(,	, , ,		(, , ,			. ,	(,
Part	Benzo(a)anthracene				,	, , ,	,	, , , ,							1 1								(
	1 11 2		0.5	mg/kg	0.138	ND (0.029)	0.709	0.395	(,	ND (0.028)	0.418 J	0.0561 J	ND (0.072)	ND (0.030)	0.0435 J	ND (0.029)	ND (0.045)	ND (0.030)	ND (0.037)	,	(* * *,	ND (0.031)	0.0343 J	,	0.47	ND (0.031)	ND (0.091)	ND (0.077)
Market								_		1 1																		
The content of the															(,			1	(*****)		(,	, , , ,				(, , , ,		
No.	4-Bromophenyl phenyl ether	-	45				. ,		(,	(,	((* * /		(, , ,	(,	(,	(,		()		(* * * * * * * * * * * * * * * * * * *	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				(* * * * * * * * * * * * * * * * * * *	,	
Marchanger Mar	Butyl benzyl phthalate	14000	1200																									
Control Cont	1,1'-Biphenyl	240	61	mg/kg	0.0488 J	0.0130 J	ND (0.033)	0.0331 J	ND (0.0095)	ND (0.0085)	ND (0.096)	0.0441 J	ND (0.022)	ND (0.0091)	0.0132 J	ND (0.0087)	ND (0.013)	ND (0.0091)	ND (0.011)	ND (0.0096)	ND (0.014)	ND (0.0093)	0.0098 J	ND (0.0065)	3.03	ND (0.0092)	ND (0.027)	ND (0.023)
Part	Benzaldehyde	68000	6100	mg/kg	ND (0.019)	ND (0.016)	ND (0.059)	ND (0.016)	ND (0.017)	ND (0.015)	ND (0.17)	ND (0.014)	ND (0.039)	ND (0.016)	ND (0.015)	ND (0.016)	ND (0.024)	ND (0.017)	ND (0.020)	ND (0.017)	ND (0.025)	ND (0.017)	ND (0.011)	ND (0.012)	ND (0.093)	ND (0.017)	ND (0.050)	ND (0.042)
1	2-Chloronaphthalene	-	-		(,	,	(, , ,	(,	(*****)	(,	. ,	(* * /	((,	(,	(,	(,	(*****/	,	(, , ,	,,,,	(/	,	, ,	(* * * * * * * * * * * * * * * * * * *		(,
		- 06	- 24		(,		(,	(,		(, , ,		(* * /			1 1				(*****/		(, , ,	,,,,						
Configuration Configuratii Configuration Configuration Configuration Configuration	Caprolactam					, ,	(*****)			, ,	(,	(, , , ,		(,	, ,	(/	(/	1	(,,,,		(/	((, , , , , ,		, ,	, , , ,	
1	Chrysene	1700	450	mg/kg	0.257	0.0233 J	2.18	0.326	ND (0.022)	ND (0.020)	1.29	0.156	ND (0.050)	ND (0.021)	0.0446 J	ND (0.020)	ND (0.031)	ND (0.021)	ND (0.025)	ND (0.022)	ND (0.032)	ND (0.021)	0.0927	ND (0.015)	2.23	ND (0.021)	ND (0.063)	ND (0.053)
Part	bis(2-Chloroethoxy)methane	-	-	mg/kg	ND (0.016)	ND (0.014)	ND (0.051)	ND (0.014)	ND (0.015)	ND (0.013)	ND (0.15)	ND (0.012)	ND (0.034)	ND (0.014)	ND (0.013)	ND (0.014)	ND (0.021)	ND (0.014)	ND (0.017)	ND (0.015)	ND (0.022)	ND (0.015)	ND (0.0092)	ND (0.010)	ND (0.081)	ND (0.014)	ND (0.043)	ND (0.036)
Control Cont	bis(2-Chloroethyl)ether				(,		,	,		(, , ,	((* * * *)	(/	((,		,,,,		(,,,,,	(, ,			(,			(,	, , , ,	()
1 15 15 15 15 15 15 15		67	23				(,	(* * * * * * * * * * * * * * * * * * *		,,,,,				, , ,	,													
1 10 10 10 10 10 10 10	2,4-Dinitrotoluene	3	0.7															1					+					
	2,6-Dinitrotoluene	3	0.7							ND (0.031)	ND (0.35)	ND (0.029)	ND (0.080)	ND (0.033)	ND (0.030)	ND (0.032)	ND (0.049)		ND (0.040)	ND (0.035)	ND (0.051)	ND (0.034)	ND (0.022)	ND (0.024)		ND (0.034)	ND (0.10)	ND (0.085)
1	3,3'-Dichlorobenzidine	4	1	mg/kg	ND (0.064)	ND (0.053)	ND (0.20)	ND (0.053)	ND (0.058)	ND (0.052)	ND (0.58)	ND (0.049)	ND (0.13)	ND (0.055)	ND (0.050)	ND (0.053)	ND (0.082)	ND (0.056)	ND (0.067)	ND (0.058)	ND (0.085)	ND (0.057)	ND (0.036)	ND (0.040)	ND (0.31)	ND (0.056)	ND (0.17)	ND (0.14)
1	1,4-Dioxane	-			(, , ,			(, , ,			· · · · · · · · · · · · · · · · · · ·	, , , , , ,			+				(,,,,,		(, , ,			, , , ,				
		2	0.5					_										1			(/		,,,,,	(/				
1	Di-n-butyl phthalate	68000	6100	5 5		(, , , ,			,	(,	(,		(,,,,,	(, , ,	(, , ,	((,	(/	(,,,,,	(,	(, , ,	, , , ,	(* /	(, , ,			, , , ,	(, , , , ,
	Di-n-octyl phthalate						1 1																					
Seconda control Seconda co	Diethyl phthalate	550000	49000	mg/kg	ND (0.016)	ND (0.014)	ND (0.051)	(,	ND (0.015)	ND (0.013)	ND (0.15)	ND (0.012)	ND (0.034)	ND (0.014)	(,	ND (0.014)	ND (0.021)	ND (0.014)	, , ,	ND (0.015)	(, , ,	ND (0.014)	ND (0.0092)	,	ND (0.080)	V ,	ND (0.043)	ND (0.036)
Note	Dimethyl phthalate	-	-				1 1															1 1						
1	bis(2-Ethylhexyl)phthalate																	1					+			(,	,	,
1 1 23 mg mg mg mg mg mg mg m	Fluoranthene									1 1																		
Second containment Second	Hexachlorobenzene																	1										
Marchesterosterosterosterosterosterosteroster	Hexachlorobutadiene	25			ND (0.031)	ND (0.026)	ND (0.096)	ND (0.025)	ND (0.028)	ND (0.025)	ND (0.28)	ND (0.023)	ND (0.064)	ND (0.027)	ND (0.024)	ND (0.026)	ND (0.039)	ND (0.027)	ND (0.032)	ND (0.028)	ND (0.041) ^f	ND (0.027) ^f	ND (0.017) ^f	ND (0.019) ^f	ND (0.15)	ND (0.027) ^f	ND (0.081) ^f	ND (0.068) ^f
Second Control Contr	Hexachlorocyclopentadiene							(,		,		(*****)					(,		(,,,,,			<u> </u>	· .					()
September Sept	Hexachloroethane				((, , , ,		(,	(,	, , , ,	((* * * *)	(,	(, , , , ,	(,		(,	(,	(*****/	,	,				(, ,			, , , ,
Mary Inspiration Mary Inspir	Indeno(1,2,3-cd)pyrene Isophorone															+		1				1 1				1		
No control No	2-Methylnaphthalene									1 1									(,,,,									
No consider of the consideration o	2-Nitroaniline	23000	39		ND (0.018)	ND (0.015)	ND (0.057)	ND (0.015)	ND (0.016)	ND (0.015)	ND (0.16)	ND (0.014)	ND (0.037)	ND (0.016)	ND (0.014)	ND (0.015)	ND (0.023)	ND (0.016)	ND (0.019)	ND (0.017)	ND (0.024)	ND (0.016)	ND (0.010)	ND (0.011)	ND (0.089)	ND (0.016)	ND (0.047)	ND (0.040)
Aphthalene 17 6 mg/kg 0.135 0.0204 J 1.06 0.147 ND (0.020) ND (0.017) ND (0.020) ND (0.019) ND (0.023) ND (0.023) ND (0.023) ND (0.023) ND (0.023) ND (0.021) ND (0.023) ND (0.024) ND (0.023) ND (0.024) ND (0.025) ND (0.0	3-Nitroaniline	-	-	mg/kg	ND (0.019)	ND (0.016)	ND (0.060)	ND (0.016)	ND (0.017)	ND (0.015)	ND (0.17)	ND (0.015)	ND (0.040)	ND (0.017)	ND (0.015)	ND (0.016)	ND (0.025)	ND (0.017)	ND (0.020)	ND (0.018)	ND (0.026)	ND (0.017)	ND (0.011)	ND (0.012)	ND (0.094)	ND (0.017)	ND (0.050)	ND (0.042)
Herebergeries He	4-Nitroaniline	-																	1				1 1					
-Nitros-di-r-propylamine 0.3 0.2 mg/kg ND (0.022) ND (0.018) ND (0.018) ND (0.018) ND (0.018) ND (0.019) ND (0.017) ND (0.017) ND (0.019) ND (0.023) ND (0										1 1																		
Holicosciplentylamine 390 99 mg/kg ND (0.028) ND (0.028	N-Nitroso-di-n-propylamine											(, , ,						1	(,,,,				,,,,	(
yrene 1800 1700 mg/kg 0.51 0.0424 J 2.48 0.905 ND (0.022) ND (0.020) 1.79 0.439 ND (0.021) ND (0.021) ND (0.021) ND (0.021) ND (0.021) ND (0.021) ND (0.023) ND (0.022) ND (0.033) ND (0.022) 0.209 ND (0.015) 3.06 ND (0.021) ND (0.054) ND (0.054)	N-Nitrosodiphenylamine						1 1			1 1					1 1							1 1						
	Phenanthrene	300000	NA	mg/kg	0.26	0.0744	11.9	0.212	ND (0.023)	ND (0.021)	8.07	0.428	ND (0.053)	ND (0.022)	0.0563 J	0.0796	ND (0.033)	ND (0.022)	ND (0.027)	ND (0.024)	ND (0.034)	ND (0.023)	0.479	0.0355 J	31.5	ND (0.023)	ND (0.067)	ND (0.057)
2.4.5-Tetrachiorobenzene - mg/kg 0.0729 J ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.016) ND (0.017) ND	Pyrene	18000	1700					_		1 1						+		1				1 1						
	1,2,4,5-Tetrachlorobenzene	-	-	mg/kg	0.0729 J	ND (0.016)	ND (0.061)	ND (0.016)	ND (0.018)	ND (0.016)	ND (0.18)	0.0152 J	ND (0.040)	ND (0.017)	ND (0.015)	ND (0.016)	ND (0.025)	ND (0.017)	ND (0.020)	ND (0.018)	ND (0.026)	ND (0.017)	ND (0.011)	ND (0.012)	ND (0.096)	ND (0.017)	ND (0.051)	ND (0.043)

Table 7.5

Detention Basin Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading New Jersey

Client Sample ID:																											
•	NJ Non-	NJ Residential		SB-1M 2.5-3.0	SB-1B 5.5-6.0	SB-2M 2.5-3.0	SB-2B 5.0-5.4	SB-3M 3.5-4.0	SB-3B 7.0-7.5	SB-4M 1.5-2.0	SB-4B 3.5-4.0	SB-5M 3.5-4.0	SB-5B 7.0-7.5	SB-6M 3.5-4.0	SB-6B 6.5-7.0	SB-7M 2.5-3.0	SB-7B 5.5-6.0	SB-8M 3.5-4.0	SB-8B 6.0-6.5	SB-9M 3.5-4.0	SB-9B 6.5-7.0	SB-10M 3.5-4.0	SB-10B 6.5-7.0	SB-11M 3.5-4.0	SB-11B 6.5-7.0	SB-12M	SB-12B 6.5-7.0
Sample Depth (ft.) Date Sampled:	Residential Direct Contact Soil	t Direct Contact Soil		11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/9/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018	11/12/2018	3.5-4.0 11/12/2018	11/12/2018
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Semi-volatile TIC																											
Total TIC, Semi-Volatile	-	-	mg/kg	19.01 J	3.33 J	283.7 J	12.02 J	2.46 J	1.52 J	474 J	24.26 J	110.3 J	7.35 J	0	10.06 J	30.78 J	0.83 J	1.61 J	3.01 J	2.69 J	1.8 J	9.85 J	3 J	759 J	0	4.8 J	26.16 J
Total Alkanes	-	-	mg/kg	9.15 J	1.58 J	123.3 J	1.63 J	0	0.54 J	281 J	11.82 J	1.4 J	0	0	3.57 J	1.59 J	0	0	0	0	0	5.31 J	0.62 J	-	0	0	0
GC/LC Semi-volatiles (NJDEP E	PH)																										
								T							T.				1	1			1				
C10-C12 Aromatics	-			ND (5.7)	ND (5.1)	98.6	ND (4.9)	ND (5.7)	ND (5.1)	171	ND (4.6)	ND (13)	ND (4.7)	ND (4.6)	ND (5.1)	ND (7.9)	ND (5.2)	ND (6.1)	ND (5.4)	ND (8.3)	ND (5.4)	8.57	ND (3.6)	538	ND (4.8)	ND (16)	ND (13)
C12-C16 Aromatics	-			ND (5.7)	ND (5.1)	586	ND (4.9)	ND (5.7)	ND (5.1)	1220	22.5	ND (13)	ND (4.7)	ND (4.6)	ND (5.1)	ND (7.9)	ND (5.2)	ND (6.1)	ND (5.4)	ND (8.3)	ND (5.4)	95.4	9.75	1510	ND (4.8)	ND (16)	ND (13)
C16-C21 Aromatics	-		mg/kg	139	ND (5.1)	3370	ND (4.9)	178	ND (5.1)	4730	169	ND (13)	ND (4.7)	ND (4.6)	ND (5.1)	23.2	ND (5.2)	ND (6.1)	ND (5.4)	ND (8.3)	ND (5.4)	521	45.2	3490	ND (4.8)	ND (16)	27.8
C21-C36 Aromatics	-		mg/kg	179	ND (5.1)	1770	ND (4.9)	400	ND (5.1)	2060	103	68	ND (4.7)	ND (4.6)	ND (5.1)	64.4	ND (5.2)	ND (6.1)	ND (5.4)	85.3	ND (5.4)	379	ND (3.6)	1720	ND (4.8)	148	287
Total Aromatics			mg/kg	318	ND (5.1)	5830	ND (4.9)	579 ND (5.7)	ND (5.1)	8180	294	68 ND (42)	ND (4.7)	ND (4.6)	ND (5.1)	87.6	ND (5.2)	ND (6.1)	ND (5.4)	85.3	ND (5.4)	1000	54.9	7260	ND (4.8)	148 ND (46)	315 ND (13)
C9-C12 Aliphatics C12-C16 Aliphatics	-		mg/kg mg/kg	33.9 130	ND (5.1) ND (5.1)	181	20.5	ND (5.7) ND (5.7)	ND (5.1) ND (5.1)	549 3780	18.3	ND (13) ND (13)	ND (4.7) ND (4.7)	ND (4.6) ND (4.6)	ND (5.1) ND (5.1)	ND (7.9) ND (7.9)	ND (5.2) ND (5.2)	ND (6.1)	ND (5.4) ND (5.4)	ND (8.3) ND (8.3)	ND (5.4)	58 344	7.79	2410 4730	ND (4.8) ND (4.8)	ND (16) ND (16)	ND (13)
C16-C21 Aliphatics	-		mg/kg	204	ND (5.1)	3040	261	15	ND (5.1)	6450	250	29.4	ND (4.7)	ND (4.6)	21	44.6	ND (5.2)	ND (6.1)	ND (5.4)	31.3	ND (5.4)	491	44.4	5620	ND (4.8)	ND (16)	34.9
C21-C40 Aliphatics	-		mg/kg	420	ND (5.1)	2760	718	33	ND (5.1)	7270	245	44.8	ND (4.7)	ND (4.6)	ND (5.1)	85.9	ND (5.2)	ND (6.1)	ND (5.4)	61	ND (5.4)	600	54.1	4580	ND (4.8)	142	167
Total Aliphatics			mg/kg	788	ND (5.1)	7470	1180	48	ND (5.1)	18100	647	74.2	ND (4.7)	ND (4.6)	21	130	ND (5.2)	ND (6.1)	ND (5.4)	92.3	ND (5.4)	1490	135	17300	ND (4.8)	142	202
Total EPH	-		mg/kg	1110	ND (10)	13300	1180	627	ND (10)	26200	941	142	ND (9.4)	ND (9.1)	21	218	ND (10)	ND (12)	ND (11)	178	ND (11)	2500	190	24600	ND (9.7)	290	517
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Metals Analysis																											
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Aluminum	NA	78000	mg/kg	30500	29200	15000	22600	21600	21600	16900	23400	19500	22900	31700	24400	31500	22400	25500	23800	21400	19900	18400	30300	33100	27800	22700	13700
Antimony	450	31	mg/kg	<4.4	<4.0	<3.1	6	<4.4	<4.1	7.9	<3.5	<9.6	<3.8	<3.8	<3.9	<6.1	<4.3	<4.7	<4.1	<6.2	<4.2	<2.6	<3.0	<14 h	<4.0	<12	<11
Arsenic	19	19	mg/kg	161	17.5	19	12000	12000	14.4	53.7	116	12.5	27.6	26.2	19.6	15.8	12.4	14.2	18.1 h	20.7	22.5	63.8 h	83.4 h	70.1 ^h	32.7 h	33.4	<11
Barium	59000	16000	mg/kg	546	81.8	76.6	389	45.7	45.3	204	568	<96	45.1	72.3	55.1	65.5	45.7	55.2	47.7	<62	<42	264	676	429	58.1	<120	<110
Beryllium	140	16	mg/kg	2.7	1.5	1.3	1.6	1.3	1.3	1.4	2.4	1.1	1.3	1.6	1.3	1.9	1.5	1.6	1.5	1.3	1.2	1.4	3.4	3.7	1.5	1.3	<1.1
Cadmium	78	78	mg/kg	3.2	<1.0	1.2	2.5	<1.1	<1.0	3.8	2.7	<2.4	<0.95	<0.95	<0.97	<1.5	<1.1	<1.2	<1.0	<1.6	<1.0	1.8 ^h	<2.2 h	5.8 h	<2.0 h	<3.0	<2.7
Calcium	-	-	mg/kg	7200	2290	1360	3240	1970	2040	14400	8390	<2400	1770	1920	2380	2940	2160	2870	2380	1980	1740	2980	14100	14500	2020	3950	3010
Chromium	-		mg/kg	152	53	477	108	43.1	39	1390	122	39.8	45.6	58.6	50.6	57.2	41.7	53.5	41.9	38.7	37.5	95.8	69.2	4500 ^h	55.9	133	73.6
Cobalt	590		mg/kg	17.8	15.8	18.3	14.3	13.6	12.1	15.9	11.4	<24	14.6	15.7	14	<15	11.1	12.1	11.3	<16	11.6	10	12.6	29.2	14.1	<30	<27
Copper	45000		mg/kg	471	34.6	75.2	762 h	16.5	15.1	296	324 h	<12	16.3 h	49.5 h	21.5 h	23.3	15.6	20.6	16.5 h	14	13.1	241 h	77.6 h	819 h	69.4 h	40.7	18.5
Iron	-		mg/kg	70300	38500	28100	46800	38600	32000	32100	47400	24300	56100	42800	46600	40400	39200	43300	49500	44800	39000	36900 h	66400 h	51700 h	44400 h	58900	16100
Lead	800		mg/kg	301	58.9	57.2	437 h	18.9	17.2	321	179 h	12.7	16.7 h	111 h	19.4 h	26.9	16	20.2	16.0 h	14.6	14.4	142 h	44.9 h	212 h	77.8 h	62.9	25.1
Magnesium	-		mg/kg	7010	8870	4380	6990	7870	7970	4310	3370	6120	7570	8720	8840	9150	7400	8970	8070	6990	7360	4430	5080	9700	8770	9090	5450
Manganese	5900		mg/kg	378	391	209	336 h	372	384	274	218 h	125	333 h	359 h	461	457	339	394	398 h	218	277	276 h	179 h	936 h	603 h	325	62.4
Mercury	65		mg/kg	6.8	0.14	0.36	7.5	0.05	0.15	0.91	2.1	0.077	<0.033	1.1	0.17	0.073	0.077	<0.077	<0.065	0.026	<0.021	1.8	0.55	1	1.7	0.15	<0.017
Nickel Potassium	23000		mg/kg	60.5 4740	39.2 5730	46.7 2700	81.5 4500	32.2 5310	30 5340	340 2480	38.7 2910	23.5 4850	31.8 5670	39.5 6110	33.8 6110	41.1 5790	31.3 5030	35 5790	31.2 5370	29.7 4810	27.2 4570	33 2550	37.1 2590	111 2590	44.4 4910	35.6 <6100	<21 <5300
Potassium Selenium	5700		mg/kg	4740 <8.8	5/30 <4.0	2700 <3.1		5310 <4.4	5340 <4.1	2480 <4.1		4850 <9.6	5670 <3.8			5/90 <6.1	5030 <4.3	5/90 <4.7		4810 <6.2	4570 <4.2	-		2590 <4.5	4910 <7.9 ^h	<6100 <12	<5300 <11
Silver	5700		mg/kg	<2.2	1.8	<0.77	24.1 h	<4.4	<4.1	<4.1	<7.0 h	<2.4	<3.8 <1.9 h	<7.6 ^h	<7.8 h	<1.5	<1.1	<4.7	<8.3 h	2.6	<4.2 2.6	<5.2 h	<8.9 ^h	<4.5	<7.9" <2.0 ^h	<12 4.2	<11
Sodium	5/00		mg/kg	4790	4740	<1500	2.9" <1900	6040	7330	<21.0	<1700	13700	<1.9 " 7060	<1.9" 4640	<1.9" 5920	5990	3390	7910	<2.1" 8380	7930	6790	2.1"	<2.2 " 2580	<3.4 " 5630	<2.0" 6130	4.2	24100
Thallium			mg/kg mg/kg	4790 <4.4	<2.0	<1.5	<3.8 h	<2.2	<2.0	<2100 <2.1	<1700 <3.5 ^h	13700 <4.8	<3.8 h	4640 <3.8 h	5920 <3.9 h	<3.1	<2.1	7910 <2.4	4.1 h	7930 <3.1	6790 <2.1	1430 <2.6 h	2580 <4.5 ^h	<6.8 h	6130 <4.0 h	17300 <6.1	24100 <5.3
Vanadium	1100		mg/kg	201	58.4	54.7	51.8	47.8	45.9	405	82.4	58.1	50.8	61	52.5	66.6	47.7	51.4	50.3	52.5	47.4	63.3	120	242 h	55.8	84.5	50.7
Zinc	110000		mg/kg	455	110	370	687	103	98.1	908	312	58.5	84.7	194	94.5	108	81.8	96.2	84	98.2	80.1	249	119	242 2120 h	166	86.5	50.8
	110000	23000	mg/kg	400	110	370	007	103	80. I	500	312	30.3	04.7	104	54.5	100	01.0	5U.Z	04	90.Z	00.1	240	110	2120	100	00.5	30.0

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Client Sample ID:				SS-13B	SS-13C	SS-14B	SS-14C	SS-15B	SS-15C	SS-16B	SS-16C	SS-17B	SS-17C	SS-18B	SS-18C	SS-19B	SS-19C	SS-20B	SS-20C	SS-21B	SS-21C	SS-22B	SS-22C	SS-23B	SS-23C	SS-24B	SS-24C
Sample Depth	NJ Non-Residential Direct	NJ Residential Direct Contact		3.0-3.5	6.0-6.5	3.5-4.0	7.0-7.5	4.0-4.5	7.5-8.0	2.5-3.0	5.5-6.0	2.5-3.0	5.5-6.0	2.5-3.0	5.0-5.5	3.0-3.5	6.5-7.0	6.0-6.5	3.0-3.5	2.5-3.0	5.5-6.0	3.0-3.5	6.5-7.0	2.0-2.5	4.5-5.0	3.0-3.5	6.0-6.5
Date Sampled:	Contact Soil	Soil		2/26/2019	2/26/2019	2/27/2019	2/27/2019	2/26/2019	2/26/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<u> </u>																										
MS Volatiles (SW846 8260C)																											
Acetone	NA	70000	mg/kg	0.0878	0.125	0.0767	0.0742	0.0457	0.0529	0.0564	0.114	0.189	0.074	0.132	0.0834	0.0525	0.0483	0.0643	0.0692	0.0285	0.032	0.0431	0.0732	0.0314	0.0861	0.0927	0.0653
Benzene	5	2	mg/kg	ND (0.0011)	ND (0.0011)	0.0014	ND (0.00096)	ND (0.00089)	ND (0.00087)	ND (0.0014)	ND (0.0013)	ND (0.0017)	0.0034	0.0118	0.002	ND (0.0011)	ND (0.0011)	ND (0.00097)	ND (0.0011)	ND (0.00092)	ND (0.00081)	ND (0.00084)	ND (0.00092)	ND (0.00066)	ND (0.00074)	ND (0.0011)	ND (0.00082)
Bromochloromethane	-	1	mg/kg	ND (0.0013)	ND (0.0012)	ND (0.0010)	ND (0.0011)	ND (0.0010)	ND (0.00099)	ND (0.0016)	ND (0.0015)	ND (0.0019)	ND (0.0011)	ND (0.0013)	ND (0.0012)	ND (0.0012)	ND (0.0013)	ND (0.0011)	ND (0.0013)	ND (0.0010)	ND (0.00092)	ND (0.00096)	ND (0.0011)	ND (0.00076)	ND (0.00084)	ND (0.0012)	ND (0.00093)
Bromodichloromethane	3	1	mg/kg	ND (0.0013)	ND (0.0013)	ND (0.0011)	ND (0.0011)	ND (0.0010)	ND (0.0010)	ND (0.0016)	ND (0.0015)	ND (0.0020)	ND (0.0011)	ND (0.0013)	ND (0.0012)	ND (0.0013)	ND (0.0013)	ND (0.0011)	ND (0.0013)	ND (0.0011)	ND (0.00095)	ND (0.00099)	ND (0.0011)	ND (0.00078)	ND (0.00087)	ND (0.0013)	ND (0.00096)
Bromoform	280	81	mg/kg	ND (0.0012)	ND (0.0011)	ND (0.00096)	ND (0.0010)	ND (0.00095)	ND (0.00093)	ND (0.0015)	ND (0.0014)	ND (0.0018)	ND (0.0010)	ND (0.0012)	ND (0.0011)	ND (0.0012)	ND (0.0012)	ND (0.0010)	ND (0.0012)	ND (0.00098)	ND (0.00087)	ND (0.00090)	ND (0.00099)	ND (0.00071)	ND (0.00079)	ND (0.0012)	ND (0.00087)
Bromomethane 2-Butanone (MEK)	59 44000	25 3100	mg/kg mg/kg	ND (0.0029) 0.0131 J	ND (0.0028) 0.0150 J	ND (0.0024)	ND (0.0025) a	ND (0.0024) ND (0.0088)	ND (0.0023) ND (0.0086)	ND (0.0037) ND (0.014)	ND (0.0034) ND (0.013)	ND (0.0044) 0.0191 J	ND (0.0026) ND (0.0097)	ND (0.0029) 0.0169 J	ND (0.0027) ND (0.010)	ND (0.0029) D ND (0.011)	ND (0.0030) ^b ND (0.011)	ND (0.0026) ^b ND (0.0096)	ND (0.0030) D ND (0.011)	ND (0.0024) ^b ND (0.0091)	ND (0.0021) D ND (0.0080)	ND (0.0022) ND (0.0083)	ND (0.0024)	ND (0.0018) ND (0.0066)	ND (0.0019) ND (0.0073)	ND (0.0028) ND (0.011)	ND (0.0022) ND (0.0081)
Carbon disulfide	110000	7800	mg/kg	0.01313	0.008	ND (0.0089)	0.0061	0.0024 J	0.0024 J	0.0079	0.0171	0.0191 J	0.0036 J	0.0169 J	0.0026 J	0.0076	0.0093	0.0067	0.0129	0.0273	0.0176	0.0089	0.0062	ND (0.0006)	ND (0.0073)	0.0058	ND (0.0020)
Carbon tetrachloride	4	2	mg/kg	ND (0.0016)	ND (0.0016)	ND (0.0013)	ND (0.0014)	ND (0.0013)	ND (0.0013)	ND (0.0020)	ND (0.0019)	ND (0.0024)	ND (0.0014)	ND (0.0016)	ND (0.0015)	ND (0.0016)	ND (0.0017)	ND (0.0014)	ND (0.0017)	ND (0.0013)	ND (0.0012)	ND (0.0012)	ND (0.0013)	ND (0.00097)	ND (0.0011)	ND (0.0016)	ND (0.0012)
Chlorobenzene	7400	510	mg/kg	ND (0.0010)	ND (0.0010)	ND (0.00084)	ND (0.00090)	ND (0.00084)	ND (0.00082)	ND (0.0013)	ND (0.0012)	ND (0.0016)	ND (0.00092)	0.0040 J	0.0012 J	ND (0.0010)	ND (0.0011)	ND (0.00091)	0.0012 J	ND (0.00086)	ND (0.00076)	ND (0.00079)	ND (0.00087)	ND (0.00062)	ND (0.00069)	0.0012 J	ND (0.00077)
Chloroethane	1100	220	mg/kg	ND (0.0020)	ND (0.0019)	ND (0.0016)	ND (0.0017)	ND (0.0016)	ND (0.0016)	ND (0.0025)	ND (0.0023)	ND (0.0030)	ND (0.0018)	ND (0.0020)	ND (0.0018)	ND (0.0020)	ND (0.0021)	ND (0.0018)	ND (0.0021)	ND (0.0017)	ND (0.0015)	ND (0.0015)	ND (0.0017)	ND (0.0012)	ND (0.0013)	ND (0.0020)	ND (0.0015)
Chloroform	2	0.6	mg/kg	ND (0.0011)	ND (0.0011)	ND (0.00088)	ND (0.00095)	ND (0.00088)	ND (0.00086)	ND (0.0014)	ND (0.0013)	ND (0.0016)	ND (0.00096)	ND (0.0011)	ND (0.0010)	ND (0.0011)	ND (0.0011)	ND (0.00096)	ND (0.0011)	ND (0.00090)	ND (0.00080)	ND (0.00083)	ND (0.00091)	ND (0.00065)	ND (0.00073)	ND (0.0011)	ND (0.00081)
Chloromethane	12	4	mg/kg	ND (0.0057)	ND (0.0056)	ND (0.0047)	ND (0.0050)	ND (0.0046)	ND (0.0045)	ND (0.0073)	ND (0.0067)	ND (0.0087)	ND (0.0051)	ND (0.0058)	ND (0.0053)	ND (0.0056)	ND (0.0059)	ND (0.0051)	ND (0.0059)	ND (0.0048)	ND (0.0042)	ND (0.0044)	ND (0.0048)	ND (0.0035)	ND (0.0038)	ND (0.0056)	ND (0.0042)
Cyclohexane 1 2-Dibromo-3-chloropropane	0.2	0.08	mg/kg mg/kg	ND (0.0012) ND (0.0025)	ND (0.0012)	ND (0.00096)	ND (0.0010) ND (0.0021)	ND (0.00096) ND (0.0020)	ND (0.00094) ND (0.0019)	ND (0.0015) ND (0.0031)	ND (0.0014) ND (0.0029)	ND (0.0018)	0.0014 J ND (0.0022)	0.0050 J ND (0.0025)	0.0015 J ND (0.0022)	ND (0.0012) ND (0.0024)	ND (0.0012) ND (0.0025)	ND (0.0010) ND (0.0022)	ND (0.0012) ND (0.0025)	ND (0.00099)	ND (0.00087)	ND (0.00090) ND (0.0019)	ND (0.0010)	ND (0.00071) ND (0.0015)	ND (0.00079)	ND (0.0012) ND (0.0024)	ND (0.00088)
Dibromochloromethane	8	3	mg/kg	ND (0.0025)	ND (0.0024)	ND (0.0020)	ND (0.0021)	ND (0.0020)	ND (0.0019)	ND (0.0031)	ND (0.0029)	ND (0.0037)	ND (0.0022)	ND (0.0025)	ND (0.0022)	ND (0.0024)	ND (0.0025)	ND (0.0022)	ND (0.0025)	ND (0.0020)	ND (0.0018)	ND (0.0019)	ND (0.0020)	ND (0.0015)	ND (0.0016)	ND (0.0024)	ND (0.0018)
1,2-Dibromoethane	0.04	0.008	mg/kg	ND (0.00095)	ND (0.00092)	ND (0.00077)	ND (0.00083)	ND (0.00007)	ND (0.00075)	ND (0.0013)	ND (0.0012)	ND (0.0013)	ND (0.00084)	ND (0.00096)	ND (0.00087)	ND (0.00093)	ND (0.00098)	ND (0.00084)	ND (0.00098)	ND (0.00032)	ND (0.00070)	ND (0.00073)	ND (0.00080)	ND (0.00057)	ND (0.00064)	ND (0.00093)	ND (0.00070)
1,2-Dichlorobenzene	59000	5300	mg/kg	ND (0.00089)	ND (0.00086)	ND (0.00072)	ND (0.00077)	ND (0.00072)	ND (0.00070)	ND (0.0011)	ND (0.0010)	ND (0.0014)	ND (0.00079)	0.0012 J	ND (0.00082)	ND (0.00087)	ND (0.00092)	ND (0.00079)	ND (0.00092)	ND (0.00074)	ND (0.00066)	ND (0.00068)	ND (0.00075)	ND (0.00054)	ND (0.00060)	ND (0.00087)	ND (0.00066)
1,3-Dichlorobenzene	59000	5300	mg/kg	ND (0.0011)	ND (0.0010)	ND (0.00085)	ND (0.00091)	ND (0.00085)	ND (0.00083)	ND (0.0013)	ND (0.0012)	ND (0.0016)	ND (0.00093)	0.0019 J	ND (0.00096)	ND (0.0010)	ND (0.0011)	ND (0.00093)	ND (0.0011)	ND (0.00087)	ND (0.00077)	ND (0.00080)	ND (0.00088)	ND (0.00063)	ND (0.00070)	ND (0.0010)	ND (0.00078)
1,4-Dichlorobenzene	13	5	mg/kg	ND (0.0010)	ND (0.00098)	ND (0.00082)	ND (0.00087)	ND (0.00081)	ND (0.00079)	ND (0.0013)	ND (0.0012)	ND (0.0015)	ND (0.00089)	0.0037	ND (0.00092)	ND (0.00099)	ND (0.0010)	ND (0.00089)	ND (0.0010)	ND (0.00084)	ND (0.00074)	ND (0.00077)	ND (0.00084)	ND (0.00061)	ND (0.00067)	ND (0.00098)	ND (0.00074)
Dichlorodifluoromethane	230000	490	mg/kg	ND (0.0019) ND (0.0011)	ND (0.0018)	ND (0.0015)	ND (0.0016)	ND (0.0015) ND (0.00091)	ND (0.0015)	ND (0.0024)	ND (0.0022)	ND (0.0028)	ND (0.0016)	ND (0.0019)	ND (0.0017) ND (0.0010)	ND (0.0018) ND (0.0011)	ND (0.0019)	ND (0.0016)	ND (0.0019)	ND (0.0015)	ND (0.0014)	ND (0.0014) a	ND (0.0016) a	ND (0.0011)	ND (0.0012) a	ND (0.0018)	ND (0.0014) a
1,1-Dichloroethane 1,2-Dichloroethane	24	0.9	mg/kg mg/kg	ND (0.0011) ND (0.0014)	ND (0.0011) ND (0.0013)	ND (0.00091) ND (0.0011)	ND (0.00098) ND (0.0012)	ND (0.00091) ND (0.0011)	ND (0.00089) ND (0.0011)	ND (0.0014) ND (0.0017)	ND (0.0013) ND (0.0016)	ND (0.0017) ND (0.0021)	ND (0.0010) ND (0.0012)	ND (0.0011) ND (0.0014)	ND (0.0010) ND (0.0013)	ND (0.0011) ND (0.0013)	ND (0.0012) ND (0.0014)	ND (0.00099) ND (0.0012)	ND (0.0012) ND (0.0014)	ND (0.00093) ND (0.0011)	ND (0.00083) ND (0.0010)	ND (0.00086) ND (0.0010)	ND (0.00094) ND (0.0012)	ND (0.00068) ND (0.00083)	ND (0.00075) ND (0.00092)	ND (0.0011) ND (0.0013)	ND (0.00083) ND (0.0010)
1.1-Dichloroethene	150	11	mg/kg	ND (0.0019)	ND (0.0019)	ND (0.0016)	ND (0.0012)	ND (0.0011)	ND (0.0011)	ND (0.0011)	ND (0.0010)	ND (0.0029)	ND (0.0012)	ND (0.0019)	ND (0.0018)	ND (0.0019)	ND (0.0020)	ND (0.0012)	ND (0.0020)	ND (0.0016)	ND (0.0014)	ND (0.0015)	ND (0.0012)	ND (0.0003)	ND (0.00032)	ND (0.0019)	ND (0.0014)
cis-1,2-Dichloroethene	560	230	mg/kg	ND (0.0028)	ND (0.0027)	ND (0.0023)	ND (0.0024)	ND (0.0023)	ND (0.0022)	ND (0.0035)	ND (0.0033)	ND (0.0042)	ND (0.0025)	ND (0.0028)	ND (0.0026)	ND (0.0027)	ND (0.0029)	ND (0.0025)	ND (0.0029)	ND (0.0023)	ND (0.0021)	ND (0.0021)	ND (0.0023)	ND (0.0017)	ND (0.0019)	ND (0.0027)	ND (0.0021)
trans-1,2-Dichloroethene	720	300	mg/kg	ND (0.0020)	ND (0.0019)	ND (0.0016)	ND (0.0017)	ND (0.0016)	ND (0.0015)	ND (0.0025)	ND (0.0023)	ND (0.0030)	ND (0.0017)	ND (0.0020)	ND (0.0018)	ND (0.0019)	ND (0.0020)	ND (0.0017)	ND (0.0020)	ND (0.0016)	ND (0.0014)	ND (0.0015)	ND (0.0016)	ND (0.0012)	ND (0.0013)	ND (0.0019)	ND (0.0014)
1,2-Dichloropropane	5	2	mg/kg	ND (0.0012)	ND (0.0012)	ND (0.00097)	ND (0.0010)	ND (0.00096)	ND (0.00094)	ND (0.0015)	ND (0.0014)	ND (0.0018)	ND (0.0011)	ND (0.0012)	ND (0.0011)	ND (0.0012)	ND (0.0012)	ND (0.0011)	ND (0.0012)	ND (0.00099)	ND (0.00087)	ND (0.00091)	ND (0.0010)	ND (0.00072)	ND (0.00080)	ND (0.0012)	ND (0.00088)
cis-1,3-Dichloropropene	7	2	mg/kg	ND (0.0010)	ND (0.0010)	ND (0.00084)	ND (0.00089)	ND (0.00083)	ND (0.00081)	ND (0.0013)	ND (0.0012)	. ,	ND (0.00091)	ND (0.0010)	ND (0.00094)	ND (0.0010)	ND (0.0011)	ND (0.00091)	ND (0.0011)	ND (0.00085)	ND (0.00076)	ND (0.00078)	ND (0.00086)	ND (0.00062)	ND (0.00069)	ND (0.0010)	ND (0.00076)
trans-1,3-Dichloropropene Ethylbenzene	110000	7800	mg/kg	ND (0.00096) ND (0.0016)	ND (0.00093)	ND (0.00078)	ND (0.00083)	ND (0.00077) ND (0.0013)	ND (0.00076) ND (0.0013)	ND (0.0012) ND (0.0020)	ND (0.0011) ND (0.0019)	ND (0.0014)	ND (0.00085)	ND (0.00096) 0.0024 J	ND (0.00088)	ND (0.00094)	ND (0.00098)	ND (0.00084)	ND (0.00099)	ND (0.00079)	ND (0.00070)	ND (0.00073)	ND (0.00080)	ND (0.00058) ND (0.00097)	ND (0.00064)	ND (0.00093)	ND (0.00071)
Freon 113	110000	7600	mg/kg mg/kg	ND (0.0016)	ND (0.0016)	ND (0.0013)	ND (0.0014)	ND (0.0013)	ND (0.0013)	ND (0.0020)	ND (0.0019)	ND (0.0024)	ND (0.0014)	ND (0.0022)	ND (0.0015)	ND (0.0016)	ND (0.0017)	ND (0.0014)	ND (0.0017)	ND (0.0013)	ND (0.0012)	ND (0.0012)	ND (0.0014)	ND (0.00097)	ND (0.0011) ND (0.0015) a	ND (0.0016)	ND (0.0012)
2-Hexanone	-	-	mg/kg	ND (0.0037)	ND (0.0036)	ND (0.0030)	ND (0.0032)	ND (0.0030)	ND (0.0029)	ND (0.0047)	ND (0.0020)	ND (0.0056)	ND (0.0033)	ND (0.0037)	ND (0.0034)	ND (0.0036)	ND (0.0038)	ND (0.0033)	ND (0.0038)	ND (0.0031)	ND (0.0027)	ND (0.0028)	ND (0.0031)	ND (0.0022)	ND (0.0015)	ND (0.0022)	ND (0.0027)
Isopropylbenzene	-	-	mg/kg	ND (0.0020)	ND (0.0020)	ND (0.0017)	ND (0.0018)	ND (0.0016)	ND (0.0016)	ND (0.0026)	ND (0.0024)	ND (0.0031)	ND (0.0018)	0.0028 J	ND (0.0019)	ND (0.0020)	ND (0.0021)	ND (0.0018)	ND (0.0021)	ND (0.0017)	ND (0.0015)	ND (0.0016)	ND (0.0017)	ND (0.0012)	ND (0.0014)	ND (0.0020)	ND (0.0015)
Methyl Acetate	NA	78000	mg/kg	ND (0.0041)	ND (0.0039)	ND (0.0033)	ND (0.0035)	ND (0.0033)	ND (0.0032)	ND (0.0052)	ND (0.0047)	ND (0.0062)	ND (0.0036)	ND (0.0041)	ND (0.0037)	ND (0.0040)	ND (0.0042)	ND (0.0036)	ND (0.0042)	ND (0.0034)	ND (0.0030)	ND (0.0031)	ND (0.0034)	ND (0.0024)	ND (0.0027)	ND (0.0040)	ND (0.0030)
Methylcyclohexane	-	-	mg/kg	ND (0.0021)	ND (0.0020)	ND (0.0017)	ND (0.0018)	ND (0.0017)	ND (0.0016)	ND (0.0026)	ND (0.0024)	ND (0.0031)	0.0041 J	0.0151	0.0059	ND (0.0020)	ND (0.0021)	0.0018 J	ND (0.0021)	ND (0.0017)	ND (0.0015)	ND (0.0016)	ND (0.0017)	ND (0.0012)	ND (0.0014)	ND (0.0020)	ND (0.0015)
Methyl Tert Butyl Ether	320	110	mg/kg	ND (0.0010) ND (0.0046)	ND (0.0010)	ND (0.00084)	ND (0.00089)	ND (0.00083) ND (0.0037)	ND (0.00081) ND (0.0036)	ND (0.0013) ND (0.0058)	ND (0.0012) ND (0.0053)	ND (0.0016) ND (0.0069)	ND (0.00091)	ND (0.0010) ND (0.0046)	ND (0.00094)	ND (0.0010) ND (0.0045)	ND (0.0011) ND (0.0047)	ND (0.00091)	ND (0.0011) ND (0.0047)	ND (0.00085)	ND (0.00076) ND (0.0034)	ND (0.00078) ND (0.0035)	ND (0.00086)	ND (0.00062) ND (0.0027)	ND (0.00069)	ND (0.0010) ND (0.0045)	ND (0.00076)
4-Methyl-2-pentanone(MIBK) Methylene chloride	230	46	mg/kg mg/kg	ND (0.0046) ND (0.0073)	ND (0.0044) ND (0.0071)	ND (0.0037) ND (0.0059)	ND (0.0040)	ND (0.0037) ND (0.0059)	ND (0.0036) ND (0.0058)	ND (0.0058) ND (0.0093)	ND (0.0053) ND (0.0085)	ND (0.0069)	ND (0.0040) ND (0.0065)	ND (0.0046) ND (0.0074)	ND (0.0042) ND (0.0067)	ND (0.0045) ND (0.0072)	ND (0.0047) ND (0.0075)	ND (0.0040) ND (0.0064)	ND (0.0047) ND (0.0075)	ND (0.0038) ND (0.0061)	ND (0.0034) ND (0.0054)	ND (0.0035) ND (0.0056)	ND (0.0038) ND (0.0061)	ND (0.0027) ND (0.0044)	ND (0.0031) ND (0.0049)	ND (0.0045) ND (0.0071)	ND (0.0034) ND (0.0054)
Styrene	260	- :-	ma/ka	ND (0.0073)	ND (0.0071)	ND (0.0039)	ND (0.0004)	ND (0.0039)	ND (0.0038)	ND (0.0093)	ND (0.0083)	ND (0.011)	ND (0.0005)	ND (0.0074)	ND (0.0007)	ND (0.0072)	ND (0.0073)	ND (0.0004)	ND (0.0073)	ND (0.0001)	ND (0.0034)	ND (0.0030)	ND (0.0001)	ND (0.0044)	ND (0.0049)	ND (0.0071)	ND (0.0034)
1,1,2,2-Tetrachloroethane	3	1	mg/kg	ND (0.0011)	ND (0.0010)	ND (0.00093)	ND (0.00099)	ND (0.00092)	ND (0.00090)	ND (0.0021)	ND (0.0020)	ND (0.0023)	ND (0.0010)	ND (0.0011)	ND (0.0010)	ND (0.0011)	ND (0.0017)	ND (0.0010)	ND (0.0017)	ND (0.00095)	ND (0.00084)	ND (0.00087)	ND (0.00096)	ND (0.00069)	ND (0.00076)	ND (0.0010)	ND (0.00084)
Tetrachloroethene	1500	43	mg/kg	ND (0.0014)	ND (0.0013)	ND (0.0011)	ND (0.0012)	ND (0.0011)	ND (0.0011)	ND (0.0017)	ND (0.0016)	ND (0.0020)	ND (0.0012)	ND (0.0014)	ND (0.0012)	ND (0.0013)	ND (0.0014)	ND (0.0012)	ND (0.0014)	ND (0.0011)	ND (0.00099)	ND (0.0010)	ND (0.0011)	ND (0.00081)	ND (0.00090)	ND (0.0013)	ND (0.0010)
Toluene	91000		mg/kg	ND (0.0011)	ND (0.0011)	ND (0.00089)	ND (0.00096)	ND (0.00089)	ND (0.00087)	ND (0.0014)	0.0014 J	ND (0.0017)	ND (0.00097)	0.004	ND (0.0010)	ND (0.0011)	ND (0.0011)	ND (0.00097)	ND (0.0011)	ND (0.00091)	ND (0.00081)	ND (0.00084)	0.0010 J	ND (0.00066)	0.00096 J	ND (0.0011)	ND (0.00081)
1,2,3-Trichlorobenzene	-	-	mg/kg	ND (0.0029)	ND (0.0028)	ND (0.0024)	ND (0.0025)	ND (0.0024)	ND (0.0023)	ND (0.0037)	ND (0.0034)	ND (0.0044)	ND (0.0026)	ND (0.0029)	ND (0.0027)	ND (0.0029)	ND (0.0030)	ND (0.0026)	ND (0.0030)	ND (0.0024)	ND (0.0021)	ND (0.0022)	ND (0.0025)	ND (0.0018)	ND (0.0020)	ND (0.0029)	ND (0.0022)
1,2,4-Trichlorobenzene	820	73	mg/kg	ND (0.0029)	ND (0.0028)	ND (0.0024)	ND (0.0025)	ND (0.0024)	ND (0.0023)	ND (0.0037)	ND (0.0034)	ND (0.0044)	ND (0.0026)	ND (0.0029)	ND (0.0027)	ND (0.0029)	ND (0.0030)	ND (0.0026)	ND (0.0030)	ND (0.0024)	ND (0.0021)	ND (0.0022)	ND (0.0025)	ND (0.0018)	ND (0.0020)	ND (0.0029)	ND (0.0022)
1,1,1-Trichloroethane 1,1,2-Trichloroethane	NA 6	160000	mg/kg	ND (0.0012)	ND (0.0012) ND (0.00097)	ND (0.0010) ND (0.00081)	ND (0.0011) ND (0.00087)	ND (0.0010)	ND (0.00098) ND (0.00079)	ND (0.0016) ND (0.0013)	ND (0.0015)	ND (0.0019) ND (0.0015)	ND (0.0011) ND (0.00089)	ND (0.0013) ND (0.0010)	ND (0.0011) ND (0.00092)	ND (0.0012) ND (0.00098)	ND (0.0013) ND (0.0010)	ND (0.0011) ND (0.00088)	ND (0.0013) ND (0.0010)	ND (0.0010) ND (0.00083)	ND (0.00092) ND (0.00074)	ND (0.00095) ND (0.00076)	ND (0.0010) ND (0.00084)	ND (0.00075) ND (0.00060)	ND (0.00083) ND (0.00067)	ND (0.0012) ND (0.00098)	ND (0.00092) ND (0.00074)
1,1,2-Trichloroethane Trichloroethene	10	3	mg/kg mg/kg	ND (0.0010) ND (0.0022)	ND (0.00097)	ND (0.00081)	ND (0.00087)	ND (0.00081) ND (0.0018)	ND (0.00079)	ND (0.0013) ND (0.0028)	ND (0.0012) ND (0.0026)	ND (0.0015)	ND (0.00089)	ND (0.0010) ND (0.0022)	ND (0.00092)	ND (0.00098)	ND (0.0010)	ND (0.00088)	ND (0.0010)	ND (0.00083)	ND (0.00074)	ND (0.00076)	ND (0.00084)	ND (0.00060) ND (0.0013)	ND (0.00067)	ND (0.00098)	ND (0.00074) ND (0.0016)
Trichlorofluoromethane	340000	23000	mg/kg	ND (0.0022)	ND (0.0022)	ND (0.0016)	ND (0.0019)	ND (0.0016)	ND (0.0016)	ND (0.0025)	ND (0.0020)	ND (0.0034)	ND (0.0020)	ND (0.0022)	ND (0.0020)	ND (0.0022)	ND (0.0023)	ND (0.0020)	ND (0.0023)	ND (0.0018)	ND (0.0016)	ND (0.0017)	ND (0.0019)	ND (0.0013)	ND (0.0013)	ND (0.0022)	ND (0.0016)
Vinyl chloride	2	0.7	mg/kg	ND (0.0014)	ND (0.0013)	ND (0.0011)	ND (0.0012)	ND (0.0011)	ND (0.0011)	ND (0.0017)	ND (0.0016)	ND (0.0021)	ND (0.0012)	ND (0.0014)	ND (0.0013)	ND (0.0013)	ND (0.0014)	ND (0.0012)	ND (0.0014)	ND (0.0011)	ND (0.0010)	ND (0.0010)	ND (0.0011)	ND (0.00083)	ND (0.00092)	ND (0.0013)	ND (0.0010)
m,p-Xylene	170000	12000	mg/kg	ND (0.0022)	ND (0.0021)	0.0028	ND (0.0019)	ND (0.0018)	ND (0.0017)	ND (0.0028)	ND (0.0025)	ND (0.0033)	0.0033	0.113	0.0067	ND (0.0021)	ND (0.0022)	ND (0.0019)	ND (0.0022)	ND (0.0018)	ND (0.0016)	ND (0.0017)	ND (0.0018)	ND (0.0013)	ND (0.0015)	0.0046	ND (0.0016)
o-Xylene	170000	12000	mg/kg	ND (0.0017)	ND (0.0017)	0.0073	ND (0.0015)	ND (0.0014)	ND (0.0013)	ND (0.0022)	ND (0.0020)	ND (0.0026)	0.0056	0.157	0.0138	ND (0.0017)	ND (0.0017)	ND (0.0015)	ND (0.0018)	ND (0.0014)	ND (0.0013)	ND (0.0013)	ND (0.0014)	ND (0.0010)	ND (0.0011)	0.0262	ND (0.0013)
Xylene (total)	170000	12000	mg/kg	ND (0.0017)	ND (0.0017)	0.0101	ND (0.0015)	ND (0.0014)	ND (0.0013)	ND (0.0022)	ND (0.0020)	ND (0.0026)	0.0089	0.27	0.0205	ND (0.0017)	ND (0.0017)	ND (0.0015)	ND (0.0018)	ND (0.0014)	ND (0.0013)	ND (0.0013)	ND (0.0014)	ND (0.0010)	ND (0.0011)	0.0308	ND (0.0013)
MS Volatile TIC																											
INO VOIATINE LIC																											
Total TIC, Volatile	-	-	mg/kg	0	0	0	0	0	0	0	0	0	0.051 J	1.188 J	0.214 J	0	0	0	0.095 J	0	0	0	0	0	0	0.373 J	0

Client Sample ID:		NJ Residentia		SS-13B	SS-13C	SS-14B	SS-14C	SS-15B	SS-15C	SS-16B	SS-16C	SS-17B	SS-17C	SS-18B	SS-18C	SS-19B	SS-19C	SS-20B	SS-20C	SS-21B	SS-21C	SS-22B	SS-22C	SS-23B	SS-23C	SS-24B	SS-24C
Sample Depth Date Sampled:	NJ Non-Residential Direct Contact Soil	Direct Contact	t	3.0-3.5 2/26/2019	6.0-6.5 2/26/2019	3.5-4.0 2/27/2019	7.0-7.5	4.0-4.5 2/26/2019	7.5-8.0	2.5-3.0	5.5-6.0 2/28/2019	2.5-3.0	5.5-6.0 2/28/2019	2.5-3.0	5.0-5.5 2/28/2019	3.0-3.5	6.5-7.0 3/1/2019	6.0-6.5 3/1/2019	3.0-3.5	2.5-3.0 3/1/2019	5.5-6.0 3/1/2019	3.0-3.5 3/5/2019	6.5-7.0 3/5/2019	2.0-2.5 3/5/2019	4.5-5.0 3/5/2019	3.0-3.5	6.0-6.5 3/5/2019
Matrix:		55		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Semi-volatiles (SW846 8270	D)																						-				
2-Chlorophenol	2200	310	mg/kg	ND (0.033)	ND (0.033)	ND (0.030)	ND (0.031)	ND (0.031)	ND (0.029)	ND (0.048)	ND (0.043)	ND (0.042)	ND (0.032)	ND (0.035)	ND (0.029)	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.029)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.032)	ND (0.028)	ND (0.026)	ND (0.031)	ND (0.027)
4-Chloro-3-methyl phenol	-	-	mg/kg	ND (0.041)	ND (0.042)	ND (0.037)	ND (0.039)	ND (0.038)	ND (0.036)	ND (0.059) a	ND (0.053) a	ND (0.052) a	ND (0.040) a	ND (0.043) a	ND (0.036) a	ND (0.040)	ND (0.039)	ND (0.039)	ND (0.036)	ND (0.037)	ND (0.038)	ND (0.037) a	ND (0.040) a	ND (0.035) a	ND (0.032) a	ND (0.039) a	ND (0.034) a
2,4-Dichlorophenol 2,4-Dimethylphenol	2100 14000	180 1200	mg/kg mg/kg	ND (0.057) ND (0.12)	ND (0.058) ND (0.12)	ND (0.051) ND (0.11)	ND (0.054) ND (0.11)	ND (0.053) ND (0.11)	ND (0.050) ND (0.10)	ND (0.083) ND (0.17)	ND (0.074) ND (0.15)	ND (0.072) ND (0.15)	ND (0.056) ND (0.12)	ND (0.060) ND (0.13)	ND (0.050) ND (0.10)	ND (0.055) ND (0.12)	ND (0.055) ND (0.11)	ND (0.055) ND (0.11)	ND (0.050) ND (0.10)	ND (0.051) ND (0.11)	ND (0.052) ND (0.11)	ND (0.051) ND (0.11)	ND (0.055) ND (0.12)	ND (0.049) ND (0.10)	ND (0.044) ND (0.092)	ND (0.054) ND (0.11)	ND (0.047) ND (0.098)
2,4-Dinitrophenol 4.6-Dinitro-o-cresol	1400 68	120	mg/kg	ND (0.25) ND (0.072)	ND (0.25) ND (0.073)	ND (0.23) ND (0.064)	ND (0.24) ND (0.068)	ND (0.24) ND (0.067)	ND (0.22) ND (0.063)	ND (0.36) ND (0.10)	ND (0.32) ND (0.092)	ND (0.32) ND (0.090)	ND (0.25) ND (0.070)	ND (0.27) ND (0.076)	ND (0.22) ND (0.062)	ND (0.24) ND (0.069)	ND (0.24) ND (0.069)	ND (0.24) ND (0.069)	ND (0.22) ND (0.063)	ND (0.23) ND (0.065)	ND (0.23) ND (0.065)	ND (0.23) ND (0.064)	ND (0.24) ND (0.069)	ND (0.21) ND (0.061)	ND (0.20) ND (0.056)	ND (0.24) ND (0.068)	ND (0.21) ND (0.059)
2-Methylphenol	3400	310	mg/kg mg/kg	ND (0.072) ND (0.043)	ND (0.073) ND (0.043)	ND (0.004)	ND (0.066)	ND (0.040)	ND (0.063)	ND (0.10)	ND (0.092) ND (0.055)	ND (0.090)	ND (0.070) ND (0.042)	ND (0.076) ND (0.045)	ND (0.062) ND (0.037)	ND (0.069) ND (0.041)	ND (0.069)	ND (0.069) ND (0.041)	ND (0.063)	ND (0.065)	ND (0.089)	ND (0.064) ND (0.038)	ND (0.069) ND (0.041)	ND (0.081)	ND (0.033)	ND (0.068) ND (0.041)	ND (0.039)
3&4-Methylphenol 2-Nitrophenol	-	-	mg/kg mg/kg	ND (0.055) ND (0.044)	ND (0.056) ND (0.045)	ND (0.050) ND (0.040) a	ND (0.052) ND (0.042) a	ND (0.051) ND (0.041)	ND (0.048)	ND (0.080) ND (0.064)	ND (0.071) ND (0.057)	ND (0.069) ND (0.056)	ND (0.054)	ND (0.058)	ND (0.048) ND (0.038)	ND (0.053)	ND (0.053)	ND (0.053)	ND (0.048)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.053) ND (0.043)	ND (0.047)	ND (0.043) ND (0.034)	ND (0.052) ND (0.042)	ND (0.045)
4-Nitrophenol	-	-	mg/kg	ND (0.18) b	ND (0.18) b	ND (0.16) a	ND (0.17) a	ND (0.17) b	ND (0.16) b	ND (0.26) a	ND (0.23) a	ND (0.23) a	ND (0.17) a	ND (0.19) a	ND (0.16) ^a	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.17)	ND (0.15)	ND (0.14)	ND (0.17)	ND (0.15)
Pentachlorophenol Phenol	3 210000	0.9 18000	mg/kg mg/kg	ND (0.063) ND (0.035)	ND (0.064) ND (0.035)	ND (0.057) ND (0.031)	ND (0.059) ND (0.033)	ND (0.059) ND (0.033)	ND (0.055) ND (0.031)	ND (0.091) ND (0.051)	ND (0.081) ND (0.045)	ND (0.079) ND (0.044)	ND (0.061) ND (0.034)	ND (0.066) ND (0.037)	ND (0.055) ND (0.030)	ND (0.061) ND (0.034)	ND (0.060) ND (0.034)	ND (0.060) ND (0.033)	ND (0.055) ND (0.031)	ND (0.057) ND (0.031)	ND (0.057) ND (0.032)	ND (0.057) ND (0.031)	ND (0.061) ND (0.034)	ND (0.054) ND (0.030)	ND (0.049) ND (0.027)	ND (0.060) ND (0.033)	ND (0.051) ND (0.029)
2,3,4,6-Tetrachlorophenol	-	- 0400	mg/kg	ND (0.044) a	ND (0.045) a	ND (0.040)	ND (0.042)	ND (0.041) a	ND (0.039) a	ND (0.064)	ND (0.057)	ND (0.056)	ND (0.043)	ND (0.047)	ND (0.038)	ND (0.043)	ND (0.043)	ND (0.042)	ND (0.039)	ND (0.040)	ND (0.041)	ND (0.040)	ND (0.043)	ND (0.038)	ND (0.034)	ND (0.042)	ND (0.036)
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	68000 74	6100 19	mg/kg mg/kg	ND (0.050) ND (0.040)	ND (0.051) ND (0.040)	ND (0.045) ND (0.036)	ND (0.047) ND (0.038)	ND (0.047) ND (0.037)	ND (0.044) ND (0.035)	ND (0.073) ND (0.058)	ND (0.065) ND (0.051)	ND (0.063) ND (0.050)	ND (0.049) ND (0.039)	ND (0.053) ND (0.042)	ND (0.044) ND (0.035)	ND (0.049) ND (0.039)	ND (0.048) ND (0.038)	ND (0.048) ND (0.038)	ND (0.044) ND (0.035)	ND (0.045) ND (0.036)	ND (0.046) ND (0.036)	ND (0.045) ND (0.036)	ND (0.048) ND (0.039)	ND (0.043) ND (0.034)	ND (0.039) ND (0.031)	ND (0.048) ND (0.038)	ND (0.041) ND (0.033)
Acenaphthene Acenaphthylene	37000 300000	3400 NA	mg/kg	ND (0.023) ND (0.034)	ND (0.023) ND (0.034)	ND (0.021) ND (0.031)	ND (0.022) ND (0.032)	ND (0.022) ND (0.032)	ND (0.020) ND (0.030)	ND (0.033) ND (0.049)	ND (0.030) ND (0.044)	ND (0.029) ND (0.043)	ND (0.023) ND (0.033)	0.0641 J ND (0.036)	0.0267 J ND (0.030)	ND (0.022) ND (0.033)	ND (0.022) ND (0.033)	ND (0.022) ND (0.033)	ND (0.020) ND (0.030)	ND (0.021) ND (0.031)	ND (0.021) ND (0.031)	ND (0.021) ND (0.031)	ND (0.022) ND (0.033)	ND (0.020) ND (0.029)	ND (0.018) ND (0.026)	0.0237 J ND (0.032)	ND (0.019) ND (0.028)
Acetophenone	5	2	mg/kg mg/kg	ND (0.034)	ND (0.034)	ND (0.031)	ND (0.032)	ND (0.032)	ND (0.030)	ND (0.049)	ND (0.044)	ND (0.043)	ND (0.033)	ND (0.036)	ND (0.030)	ND (0.033)	ND (0.033)	ND (0.033)	ND (0.030)	ND (0.031)	ND (0.031)	ND (0.031)	ND (0.033)	ND (0.029)	ND (0.020)	ND (0.032)	ND (0.028)
Anthracene Atrazine	30000 2400	17000 210	mg/kg mg/kg	ND (0.041) ND (0.029)	ND (0.042) ND (0.029)	ND (0.037) ND (0.026) a	ND (0.039) ND (0.027) a	ND (0.038) ND (0.027)	ND (0.036) ND (0.025)	ND (0.059) ND (0.042)	ND (0.053) ND (0.037)	ND (0.052) ND (0.036)	ND (0.040) ND (0.028)	0.162 ND (0.030)	0.0433 J ND (0.025)	ND (0.040) ND (0.028)	ND (0.039) ND (0.028)	ND (0.039) ND (0.027)	ND (0.036) ND (0.025) a	ND (0.037) ND (0.026)	ND (0.038) ND (0.026)	ND (0.037) ND (0.026)	ND (0.040) ND (0.028)	ND (0.035) ND (0.024)	ND (0.032) ND (0.022)	0.0495 J ND (0.027)	ND (0.034) ND (0.023)
Benzo(a)anthracene	17	5	mg/kg	ND (0.019)	ND (0.019)	0.0314 J	ND (0.018)	ND (0.018)	ND (0.017)	ND (0.027)	ND (0.024)	0.105	0.0242 J	0.109	0.0535 J	ND (0.018)	ND (0.018)	ND (0.018)	ND (0.017)	ND (0.017)	ND (0.017)	ND (0.017)	ND (0.018)	ND (0.016)	ND (0.015)	0.0638 J	ND (0.016)
Benzo(a)pyrene Benzo(b)fluoranthene	2 17	0.5 5	mg/kg mg/kg	ND (0.030) ND (0.030)	ND (0.031) ND (0.030)	ND (0.027) a ND (0.027) a	ND (0.029) a ND (0.028) a	ND (0.028) ND (0.028)	ND (0.027) ND (0.026)	ND (0.044) ND (0.043)	ND (0.039) ND (0.038)	0.0939 0.135	ND (0.030) ND (0.029)	0.0854 0.0933	0.0444 J 0.0508 J	ND (0.030) ND (0.029)	ND (0.029) ND (0.028)	ND (0.029) ND (0.028)	ND (0.027) ND (0.026)	ND (0.027) ND (0.027)	ND (0.028) ND (0.027)	ND (0.027) ND (0.027)	ND (0.029) ND (0.029)	ND (0.026) ND (0.025)	ND (0.024) ND (0.023)	0.0443 J 0.0550 J	ND (0.025) ND (0.024)
Benzo(g,h,i)perylene Benzo(k)fluoranthene	30000	380000 45	mg/kg	ND (0.033)	ND (0.034)	ND (0.030)	ND (0.032)	ND (0.031)	ND (0.029)	ND (0.048)	ND (0.043) ND (0.040)	0.0674 J	ND (0.033)	0.0757	0.0462 J	ND (0.032)	ND (0.032)	ND (0.032)	ND (0.029)	ND (0.030)	ND (0.031)	ND (0.030)	ND (0.032) ND (0.030)	ND (0.029)	ND (0.026)	ND (0.032)	ND (0.027)
4-Bromophenyl phenyl ether	170	-	mg/kg mg/kg	ND (0.031) ND (0.026)	ND (0.032) ND (0.026)	ND (0.028) ND (0.023)	ND (0.029) ND (0.024)	ND (0.029) ND (0.024)	ND (0.027) ND (0.023)	ND (0.045) ND (0.037)	ND (0.040) ND (0.033)	0.0611 J ND (0.033)	ND (0.031) ND (0.025)	0.0344 J ND (0.027)	ND (0.027) ND (0.022)	ND (0.030) ND (0.025)	ND (0.030) ND (0.025)	ND (0.030) ND (0.025)	ND (0.027) ND (0.023)	ND (0.028) ND (0.023)	ND (0.029) ND (0.024)	ND (0.028) ND (0.023)	ND (0.030) ND (0.025)	ND (0.027) ND (0.022)	ND (0.024) ND (0.020)	ND (0.030) ND (0.025)	ND (0.026) ND (0.021)
Butyl benzyl phthalate 1,1'-Biphenyl	14000 240	1200 61	mg/kg mg/kg	ND (0.016) ND (0.0092)	ND (0.017) ND (0.0093)	ND (0.015) a ND (0.0083)	ND (0.015) a ND (0.0086)	ND (0.015) ND (0.0086)	ND (0.014) ND (0.0080)	ND (0.024) ND (0.013)	ND (0.021) ND (0.012)	ND (0.021) ND (0.012)	ND (0.016) ND (0.0090)	ND (0.017) 0.0107 J	ND (0.014) 0.0137 J	ND (0.016) a ND (0.0089)	ND (0.016) a ND (0.0088)	ND (0.016) a ND (0.0088)	ND (0.014) ND (0.0081)	ND (0.015) a ND (0.0083)	ND (0.015) a ND (0.0084)	ND (0.015) ND (0.0083)	ND (0.016) ND (0.0089)	ND (0.014) ND (0.0078)	ND (0.013) ND (0.0071)	ND (0.016) ND (0.0087)	ND (0.013) ND (0.0075)
Benzaldehyde	68000	6100	mg/kg	ND (0.0092)	ND (0.0093)	ND (0.0063)	ND (0.0080)	ND (0.0060)	ND (0.0050)	ND (0.024) a	ND (0.012)	ND (0.012)	ND (0.016) a	ND (0.018) a	ND (0.014) a	ND (0.0089)	ND (0.0088)	ND (0.0088)	ND (0.0081)	ND (0.0083)	ND (0.0084)	ND (0.0083)	ND (0.0089)	ND (0.0078)	ND (0.0071)	ND (0.016) a	ND (0.014) a
2-Chloronaphthalene 4-Chloroaniline	-	-	mg/kg mg/kg	ND (0.016) ND (0.024)	ND (0.016) ND (0.024)	ND (0.014) ND (0.022)	ND (0.015) ND (0.023)	ND (0.015) ND (0.023)	ND (0.014) ND (0.021)	ND (0.023) ND (0.035)	ND (0.021) ND (0.031)	ND (0.020) ND (0.030)	ND (0.016) ND (0.024)	ND (0.017) ND (0.025)	ND (0.014) ND (0.021)	ND (0.015) ND (0.023)	ND (0.015) ND (0.023)	ND (0.015) ND (0.023)	ND (0.014) ND (0.021)	ND (0.014) ND (0.022)	ND (0.015) ND (0.022)	ND (0.014) ND (0.022)	ND (0.015) ND (0.023)	ND (0.014) ND (0.021)	ND (0.012) ND (0.019)	ND (0.015) ND (0.023)	ND (0.013) ND (0.020)
Carbazole	96	24	mg/kg	ND (0.0097)	ND (0.0098)	ND (0.0087)	ND (0.0092)	ND (0.0091)	ND (0.0085)	ND (0.014)	ND (0.012)	0.0126 J	ND (0.0095)	ND (0.010)	ND (0.0084)	ND (0.0094)	ND (0.0093)	ND (0.0093)	ND (0.0085)	ND (0.0087)	ND (0.0089)	ND (0.0087)	ND (0.0094)	ND (0.0083)	ND (0.0075)	ND (0.0092)	ND (0.0079)
Caprolactam Chrysene	340000 1700	31000 450	mg/kg mg/kg	ND (0.026) ND (0.021)	ND (0.027) ND (0.021)	ND (0.024) 0.0263 J	ND (0.025) ND (0.020)	ND (0.025) ND (0.020)	ND (0.023) ND (0.018)	ND (0.038) ND (0.031)	ND (0.034) ND (0.027)	ND (0.033) 0.124	ND (0.026) 0.0257 J	ND (0.028) 0.154	ND (0.023) 0.07	ND (0.026) ND (0.020)	ND (0.025) ND (0.020)	ND (0.025) ND (0.020)	ND (0.023) ND (0.019)	ND (0.024) ND (0.019)	ND (0.024) ND (0.019)	ND (0.024) ND (0.019)	ND (0.026) ND (0.020)	ND (0.023) ND (0.018)	ND (0.021) ND (0.016)	ND (0.025) 0.0847	ND (0.022) ND (0.017)
bis(2-Chloroethoxy)methane	-	-	mg/kg	ND (0.014)	ND (0.015)	ND (0.013)	ND (0.014)	ND (0.013)	ND (0.013)	ND (0.021)	ND (0.018)	ND (0.018)	ND (0.014)	ND (0.015)	ND (0.012)	ND (0.014)	ND (0.014)	ND (0.014)	ND (0.013)	ND (0.013)	ND (0.013)	ND (0.013)	ND (0.014)	ND (0.012)	ND (0.011)	ND (0.014)	ND (0.012)
bis(2-Chloroethyl)ether 2,2'-Oxybis(1-chloropropane)	67	0.4	mg/kg mg/kg	ND (0.029) ND (0.024)	ND (0.029) ND (0.024)	ND (0.026) ND (0.022) b	ND (0.027) ND (0.023) b	ND (0.027) ND (0.022)	ND (0.025) ND (0.021)	ND (0.042) ND (0.035)	ND (0.037) ND (0.031)	ND (0.036) ND (0.030)	ND (0.028) ND (0.023)	ND (0.031) ND (0.025)	ND (0.025) ND (0.021)	ND (0.028) ND (0.023)	ND (0.028) ND (0.023)	ND (0.028) ND (0.023)	ND (0.025) ND (0.021)	ND (0.026) ND (0.022)	ND (0.026) ND (0.022)	ND (0.026) ND (0.022)	ND (0.028) ND (0.023)	ND (0.025) ND (0.021)	ND (0.022) ND (0.019)	ND (0.027) ND (0.023)	ND (0.024) ND (0.020)
4-Chlorophenyl phenyl ether	-	- 0.7	mg/kg	ND (0.022)	ND (0.022)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.019)	ND (0.031)	ND (0.028)	ND (0.027)	ND (0.021)	ND (0.023)	ND (0.019)	ND (0.021)	ND (0.021)	ND (0.021)	ND (0.019)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.021)	ND (0.019)	ND (0.017)	ND (0.021)	ND (0.018)
2,4-Dinitrotoluene 2,6-Dinitrotoluene	3	0.7	mg/kg mg/kg	ND (0.021) a ND (0.034)	ND (0.021) a ND (0.034)	ND (0.019) ND (0.030)	ND (0.020) ND (0.032)	ND (0.019) a ND (0.031)	ND (0.018) a ND (0.029)	ND (0.030) ND (0.049)	ND (0.027) ND (0.043)	ND (0.026) ND (0.042)	ND (0.020) ND (0.033)	ND (0.022) ND (0.036)	ND (0.018) ND (0.029)	ND (0.020) ND (0.033)	ND (0.020) ND (0.032)	ND (0.020) ND (0.032)	ND (0.018) ND (0.030)	ND (0.019) ND (0.030)	ND (0.019) ND (0.031)	ND (0.019) a ND (0.030)	ND (0.020) a ND (0.032)	ND (0.018) a ND (0.029)	ND (0.016) a ND (0.026)	ND (0.020) a ND (0.032)	ND (0.017) a ND (0.028)
3,3'-Dichlorobenzidine	4	1	mg/kg	ND (0.056)	ND (0.057)	ND (0.050)	ND (0.053)	ND (0.052)	ND (0.049)	ND (0.081)	ND (0.072)	ND (0.070)	ND (0.055)	ND (0.059)	ND (0.048)	ND (0.054)	ND (0.054)	ND (0.053)	ND (0.049)	ND (0.050)	ND (0.051)	ND (0.050)	ND (0.054)	ND (0.048)	ND (0.043)	ND (0.053)	ND (0.046)
1,4-Dioxane Dibenzo(a,h)anthracene	2	0.5	mg/kg mg/kg	ND (0.044) ND (0.030)	ND (0.045) ND (0.030)	ND (0.040) 0.0969	ND (0.042) ND (0.028)	ND (0.041) ND (0.028)	ND (0.039) ND (0.026)	ND (0.064) ND (0.043)	ND (0.057) ND (0.038)	ND (0.056) ND (0.037)	ND (0.043) ND (0.029)	ND (0.047) ND (0.031)	ND (0.038) ND (0.026)	ND (0.043) ND (0.029)	ND (0.042) ND (0.028)	ND (0.042) ND (0.028)	ND (0.039) ND (0.026)	ND (0.040) ND (0.027)	ND (0.040) ND (0.027)	ND (0.040) ND (0.027)	ND (0.043) ND (0.029)	ND (0.038) ND (0.025)	ND (0.034) ND (0.023)	ND (0.042) ND (0.028)	ND (0.036) ND (0.024)
Dibenzofuran Di-n-butyl phthalate	68000	6100	mg/kg mg/kg	ND (0.027) ND (0.011)	ND (0.028) ND (0.011)	ND (0.025) ND (0.0098) a	ND (0.026) ND (0.010) a	ND (0.025) ND (0.010)	ND (0.024) ND (0.0095)	ND (0.039) ND (0.016)	ND (0.035) ND (0.014)	ND (0.034) ND (0.014)	ND (0.027) ND (0.011)	ND (0.029) ND (0.012)	ND (0.024) ND (0.0095)	ND (0.026) ND (0.011) ^a	ND (0.026) ND (0.010) ^a	ND (0.026) ND (0.010) ^a	ND (0.024) ND (0.0096)	ND (0.025) ND (0.0098) a	ND (0.025) ND (0.010) ^a	ND (0.025) ND (0.0098)	ND (0.026) ND (0.011)	ND (0.023) ND (0.0093)	ND (0.021) ND (0.0085)	ND (0.026) ND (0.010)	ND (0.022) ND (0.0089)
Di-n-octyl phthalate	27000	2400	mg/kg	ND (0.017)	ND (0.017)	ND (0.015)	ND (0.016)	ND (0.016)	ND (0.015)	ND (0.024)	ND (0.021)	ND (0.021)	ND (0.016)	ND (0.018)	ND (0.014)	ND (0.016)	ND (0.016)	ND (0.016)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.016)	ND (0.014)	ND (0.013)	ND (0.016)	ND (0.014)
Diethyl phthalate Dimethyl phthalate	550000	49000	mg/kg mg/kg	ND (0.014) ND (0.012)	ND (0.014) ND (0.012)	ND (0.013) ND (0.011)	ND (0.013) ND (0.011)	ND (0.013) ND (0.011)	ND (0.012) ND (0.010)	ND (0.021) ND (0.017)	ND (0.018) ND (0.015)	ND (0.018) ND (0.015)	ND (0.014) ND (0.012)	ND (0.015) ND (0.013)	ND (0.012) ND (0.010)	ND (0.014) ND (0.012)	ND (0.014) ND (0.011)	ND (0.014) ND (0.011)	ND (0.013) ND (0.010)	ND (0.013) ND (0.011)	ND (0.013) ND (0.011)	ND (0.013) ND (0.011)	ND (0.014) ND (0.012)	ND (0.012) ND (0.010)	ND (0.011) ND (0.0092)	ND (0.014) ND (0.011)	ND (0.012) ND (0.0098)
bis(2-Ethylhexyl)phthalate	140	35	mg/kg	ND (0.016)	ND (0.016)	ND (0.014) a	ND (0.015) a	ND (0.015)	ND (0.014)	ND (0.023)	ND (0.020)	0.518	0.108 J	0.768	0.64	ND (0.015) a	ND (0.015) a	ND (0.015) a	0.0730 J	ND (0.014) a	ND (0.014) a	ND (0.014) a	ND (0.015) a	ND (0.013) a	ND (0.012) a	ND (0.015) a	ND (0.013) a
Fluoranthene Fluorene	24000 24000	2300 2300	mg/kg mg/kg	ND (0.030) ND (0.031)	ND (0.030) ND (0.031)	0.0558 J ND (0.028)	ND (0.028) ND (0.029)	ND (0.028) ND (0.029)	ND (0.026) ND (0.027)	ND (0.043) ND (0.045)	ND (0.038) ND (0.040)	0.183 ND (0.039)	0.0374 J ND (0.030)	0.228	0.109 ND (0.027)	ND (0.029) ND (0.030)	ND (0.029) ND (0.030)	ND (0.029) ND (0.029)	ND (0.026) ND (0.027)	ND (0.027) ND (0.028)	ND (0.027) ND (0.028)	ND (0.027) ND (0.028)	ND (0.029) ND (0.030)	ND (0.025) ND (0.026)	ND (0.023) ND (0.024)	0.126 ND (0.029)	ND (0.024) ND (0.025)
Hexachlorobenzene Hexachlorobutadiene	1 25	0.3	mg/kg	ND (0.017)	ND (0.017) ND (0.027)	ND (0.015) ND (0.024)	ND (0.016) ND (0.025)	ND (0.016) ND (0.025)	ND (0.015) ND (0.024)	ND (0.025) b ND (0.039)	ND (0.022) b ND (0.035)	ND (0.021) b ND (0.034)	ND (0.017) b ND (0.026)	ND (0.018) b ND (0.028)	ND (0.015) b ND (0.023)	ND (0.016) ND (0.026)	ND (0.016) ND (0.026)	ND (0.016) ND (0.026)	ND (0.015) ND (0.024)	ND (0.015) ND (0.024)	ND (0.015) ND (0.025)	ND (0.015) ND (0.024)	ND (0.016) ND (0.026)	ND (0.014) ND (0.023)	ND (0.013) ND (0.021)	ND (0.016) ND (0.026)	ND (0.014)
Hexachlorocyclopentadiene	110	45	mg/kg mg/kg	ND (0.027) ND (0.027)	ND (0.027)	ND (0.024)	ND (0.025)	ND (0.025)	ND (0.024)	ND (0.039)	ND (0.035)	ND (0.034)	ND (0.026)	ND (0.028)	ND (0.023)	ND (0.026)	ND (0.026)	ND (0.026)	ND (0.024)	ND (0.024)	ND (0.025)	ND (0.024)	ND (0.026)	ND (0.023)	ND (0.021)	ND (0.026) ND (0.025)	ND (0.022) ND (0.022)
Hexachloroethane Indeno(1,2,3-cd)pyrene	48 17	12	mg/kg	ND (0.033) ND (0.031)	ND (0.034) ND (0.032)	ND (0.030) 0.131	ND (0.031) ND (0.030)	ND (0.031) ND (0.029)	ND (0.029) ND (0.027)	ND (0.048) ND (0.045)	ND (0.043) ND (0.040)	ND (0.042) 0.0663 J	ND (0.032) ND (0.031)	ND (0.035) 0.0497 J	ND (0.029) 0.0298 J	ND (0.032) ND (0.030)	ND (0.032) ND (0.030)	ND (0.032) ND (0.030)	ND (0.029) ND (0.028)	ND (0.030) ND (0.028)	ND (0.030) ND (0.029)	ND (0.030) ND (0.028)	ND (0.032) ND (0.030)	ND (0.028) ND (0.027)	ND (0.026) ND (0.024)	ND (0.032) ND (0.030)	ND (0.027) ND (0.026)
Isophorone	2000	510	mg/kg mg/kg	ND (0.031)	ND (0.032)	ND (0.013)	ND (0.030)	ND (0.029)	ND (0.027)	ND (0.043)	ND (0.040)	ND (0.018)	ND (0.031)	ND (0.015)	ND (0.012)	ND (0.030)	ND (0.030)	ND (0.030)	ND (0.028)	ND (0.028)	ND (0.029)	ND (0.028)	ND (0.030)	ND (0.027)	ND (0.024)	ND (0.030)	ND (0.020)
2-Methylnaphthalene 2-Nitroaniline	2400 23000	230 39	mg/kg mg/kg	ND (0.015)	ND (0.015)	ND (0.014) ND (0.014) a	ND (0.014) ND (0.015) a	ND (0.014) ND (0.015)	ND (0.013)	ND (0.022) ND (0.023)	ND (0.019)	ND (0.019)	0.0215 J ND (0.015)	0.077 ND (0.017)	0.0269 J ND (0.014)	ND (0.015)	ND (0.015)	ND (0.014)	ND (0.013) ND (0.014)	ND (0.014)	ND (0.014)	ND (0.014) ND (0.014)	ND (0.015) ND (0.015)	ND (0.013)	ND (0.012) ND (0.012)	ND (0.014) ND (0.015)	ND (0.012) ND (0.013)
3-Nitroaniline	-	-	mg/kg	ND (0.017)	ND (0.017)	ND (0.015)	ND (0.016)	ND (0.016)	ND (0.015)	ND (0.024) a	ND (0.022) a	ND (0.021) a	ND (0.016) a	ND (0.018) a	ND (0.015) a	ND (0.016)	ND (0.016)	ND (0.016)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.016)	ND (0.014)	ND (0.013)	ND (0.016)	ND (0.014)
4-Nitroaniline Naphthalene	- 17	- 6	mg/kg mg/kg		ND (0.018) ND (0.019)	ND (0.016) ND (0.017)	ND (0.016) ND (0.018)	ND (0.016) 0.0227 J	ND (0.015) 0.0288 J	ND (0.025) ND (0.027)	ND (0.022) ND (0.024)	ND (0.022) ND (0.024)	ND (0.017) 0.0216 J	ND (0.018) 0.0726	ND (0.015) 0.0203 J	ND (0.017) b 0.0504 J	ND (0.017) b ND (0.018)	ND (0.017) b ND (0.018)	ND (0.015) ND (0.017)	ND (0.016) b ND (0.017)	ND (0.016) b ND (0.017)	ND (0.016) ND (0.017)	ND (0.017) ND (0.018)	ND (0.015) ND (0.016)	ND (0.013) ND (0.015)	ND (0.016) 0.0212 J	ND (0.014) ND (0.015)
Nitrobenzene	14	5	mg/kg	ND (0.026)	ND (0.026)	ND (0.023)	ND (0.024)	ND (0.024)	ND (0.023)	ND (0.037)	ND (0.033)	ND (0.033)	ND (0.025)	ND (0.027)	ND (0.022)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.023)	ND (0.023)	ND (0.024)	ND (0.023)	ND (0.025)	ND (0.022)	ND (0.020)	ND (0.025)	ND (0.021)
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	0.3 390	0.2 99	mg/kg mg/kg	ND (0.019) ND (0.024)	ND (0.020) ND (0.025)	ND (0.017) ND (0.022)	ND (0.018) ND (0.023)	ND (0.018) ND (0.023)	ND (0.017) ND (0.021)	ND (0.028) ND (0.035)	ND (0.025) ND (0.032)	ND (0.024) ND (0.031)	ND (0.019) ND (0.024)	ND (0.020) ND (0.026)	ND (0.017) ND (0.021)	ND (0.019) ND (0.024)	ND (0.019) ND (0.024)	ND (0.019) ND (0.023)	ND (0.017) ND (0.022)	ND (0.017) ND (0.022)	ND (0.018) ND (0.022)	ND (0.017) ND (0.022)	ND (0.019) ND (0.024)	ND (0.017) ND (0.021)	ND (0.015) ND (0.019)	ND (0.018) ND (0.023)	ND (0.016) ND (0.020)
Phenanthrene	300000	NA 4700	mg/kg		ND (0.023)	0.0419 J	ND (0.021)	ND (0.021)	ND (0.020)	ND (0.033) b	ND (0.029) b	0.0919 b	ND (0.022) b	0.150 b	0.0622 b	ND (0.022)	ND (0.022)	ND (0.022)	ND (0.020)	ND (0.020)	ND (0.021)	ND (0.020)	ND (0.022)	ND (0.019)	ND (0.017)	ND (0.021)	ND (0.018)
Pyrene 1,2,4,5-Tetrachlorobenzene	18000	1700	mg/kg mg/kg		ND (0.022) ND (0.017)	0.0909 ND (0.015)	ND (0.020) ND (0.016)	ND (0.020) ND (0.016)	ND (0.019) ND (0.015)	ND (0.031) ND (0.025)	ND (0.028) ND (0.022)	0.243 ND (0.021)	0.0498 J ND (0.017)	0.377 ND (0.018)	0.162 ND (0.015)	ND (0.021) ND (0.016)	ND (0.021) ND (0.016)	0.0245 J ND (0.016)	ND (0.019) ND (0.015)	ND (0.019) ND (0.015)	ND (0.020) ND (0.016)	ND (0.019) ND (0.015)	ND (0.021) ND (0.016)	0.0999 ND (0.015)	ND (0.017) ND (0.013)	0.181 ND (0.016)	0.0334 J ND (0.014)
MS Semi-volatile TIC																											
	T.		1		500.1	0.00.1			0.00.1	0.00.1			0.40.1	05.04.1	40.00.1			1 451	4.0.1	0.74 1	0.00.1	0.00.1	0.70		0.001	•	
Total TIC, Semi-Volatile	-	-	mg/kg	3.41 J	5.62 J	0.26 J	0	1.31 J	2.28 J	2.92 J	1.1 J	1.14 J	0.46 J	25.01 J	13.02 J	0	0	1.5 J	1.6 J	0.71 J	0.62 J	0.29 J	0.76 J	0	0.89 J	0	0
GC/LC Semi-volatiles (NJDEP E	PH)																										
C10-C12 Aromatics	-	-	mg/kg		ND (5.2)	ND (5.1)	ND (4.8)	ND (5.0)	ND (4.6)	ND (7.9)	ND (7.3)	ND (6.8)	ND (5.2)	ND (5.5)	ND (4.7)	ND (5.4)	ND (4.8)	ND (5.1)	ND (4.9)	ND (4.9)	ND (5.0)	ND (4.8)	ND (5.0)	ND (4.6)	ND (4.1)	ND (5.1)	ND (4.2)
C12-C16 Aromatics C16-C21 Aromatics	-	-	mg/kg mg/kg		ND (5.2) ND (5.2)	ND (5.1) ND (5.1)	ND (4.8) ND (4.8)	ND (5.0) ND (5.0)	ND (4.6) ND (4.6)	ND (7.9) ND (7.9)	ND (7.3) ND (7.3)	ND (6.8) ND (6.8)	ND (5.2) ND (5.2)	ND (5.5) 86.7	ND (4.7) 102	ND (5.4) ND (5.4)	ND (4.8) ND (4.8)	ND (5.1) ND (5.1)	ND (4.9) ND (4.9)	ND (4.9) ND (4.9)	ND (5.0) ND (5.0)	ND (4.8) ND (4.8)	ND (5.0) ND (5.0)	ND (4.6) ND (4.6)	ND (4.1) ND (4.1)	ND (5.1) 16	ND (4.2) ND (4.2)
C21-C36 Aromatics	-	-	mg/kg	ND (5.4)	ND (5.2)	ND (5.1)	ND (4.8)	ND (5.0)	ND (4.6)	ND (7.9)	ND (7.3)	ND (6.8)	ND (5.2)	79.4	95.5	ND (5.4)	ND (4.8)	ND (5.1)	ND (4.9)	ND (4.9)	ND (5.0)	ND (4.8)	ND (5.0)	ND (4.6)	ND (4.1)	23.7	ND (4.2)
Total Aromatics C9-C12 Aliphatics	-	-	mg/kg mg/kg		ND (5.2) ND (5.2)	ND (5.1) ND (5.1)	ND (4.8) ND (4.8)	ND (5.0) ND (5.0)	ND (4.6) ND (4.6)	ND (7.9) ND (7.9)	ND (7.3) ND (7.3)	ND (6.8) ND (6.8)	ND (5.2) ND (5.2)	166 35.8	198 34.9	ND (5.4) ND (5.4)	ND (4.8) ND (4.8)	ND (5.1) ND (5.1)	ND (4.9) ND (4.9)	ND (4.9) ND (4.9)	ND (5.0) ND (5.0)	ND (4.8) ND (4.8)	ND (5.0) ND (5.0)	ND (4.6) ND (4.6)	ND (4.1) ND (4.1)	39.7 ND (5.1)	ND (4.2) ND (4.2)
C12-C16 Aliphatics	-	-	mg/kg	ND (5.4)	ND (5.2)	11.5	ND (4.8)	ND (5.0)	ND (4.6)	ND (7.9)	ND (7.3)	ND (6.8)	ND (5.2)	126	133	ND (5.4)	ND (4.8)	ND (5.1)	23.3	ND (4.9)	ND (5.0)	ND (4.8)	ND (5.0)	ND (4.6)	ND (4.1)	29.4	9.45
C16-C21 Aliphatics C21-C40 Aliphatics	-	-	mg/kg mg/kg		ND (5.2) ND (5.2)	17.2 27.6	ND (4.8) ND (4.8)	ND (5.0) ND (5.0)	ND (4.6) ND (4.6)	ND (7.9) ND (7.9)	ND (7.3) ND (7.3)	27.4 72.3	ND (5.2) ND (5.2)	197 266	202 254	ND (5.4) ND (5.4)	ND (4.8) ND (4.8)	ND (5.1) ND (5.1)	29.6 41.1	ND (4.9) ND (4.9)	ND (5.0) ND (5.0)	ND (4.8) ND (4.8)	ND (5.0) ND (5.0)	ND (4.6) ND (4.6)	ND (4.1) ND (4.1)	40.4 70.4	16.7 28.9
Total Aliphatics	-	-	mg/kg	ND (5.4)	ND (5.2)	56.3	ND (4.8)	ND (5.0)	ND (4.6)	ND (7.9)	ND (7.3)	99.7	ND (5.2)	625	623	ND (5.4)	ND (4.8)	ND (5.1)	94	ND (4.9)	ND (5.0)	ND (4.8)	ND (5.0)	ND (4.6)	ND (4.1)	140	55.1
Total EPH	-	-	mg/kg	ND (11)	ND (10)	56.3	ND (9.7)	ND (10)	ND (9.2)	ND (16)	ND (15)	99.7	ND (10)	791	821	ND (11)	ND (9.7)	ND (10)	94	ND (9.8)	ND (10)	ND (9.5)	ND (10)	ND (9.3)	ND (8.1)	180	55.1

Table 7.5
Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

Client Sample ID:				SS-13B	SS-13C	SS-14B	SS-14C	SS-15B	SS-15C	SS-16B	SS-16C	SS-17B	SS-17C	SS-18B	SS-18C	SS-19B	SS-19C	SS-20B	SS-20C	SS-21B	SS-21C	SS-22B	SS-22C	SS-23B	SS-23C	SS-24B	SS-24C
Sample Depth		NJ Residential Direct Contact		3.0-3.5	6.0-6.5	3.5-4.0	7.0-7.5	4.0-4.5	7.5-8.0	2.5-3.0	5.5-6.0	2.5-3.0	5.5-6.0	2.5-3.0	5.0-5.5	3.0-3.5	6.5-7.0	6.0-6.5	3.0-3.5	2.5-3.0	5.5-6.0	3.0-3.5	6.5-7.0	2.0-2.5	4.5-5.0	3.0-3.5	6.0-6.5
Date Sampled:	Contact Soil	Soil		2/26/2019	2/26/2019	2/27/2019	2/27/2019	2/26/2019	2/26/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	2/28/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/1/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019	3/5/2019
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
				•		•															-						-
Metals Analysis																											
Alumiumn	NA	78000	mg/kg	21600	20800	21800	22000	22400	21600	23100	28900	20500	19300	25400	24400	27500	24600	25500	27700	22500	27700	22500	23500	23400	22300	28400	33300
Antimony	450	31	mg/kg	<3.9	<4.1	<4.0	<4.3	<3.7	<3.6	<5.9	<5.4	<5.5	<4.1	<4.4	<3.6	<4.0	<4.1	<4.0	<3.7	<3.8	<4.0	<3.8	<3.8	<3.6	<3.1	<4.0	<3.1
Arsenic	19	19	mg/kg	10.7	16.7	28.4	21.7	9.5	12.4	13.4	16.2	57.7	39.2 ^f	141 ^f	101 ^f	9	9.3	45.6 ^f	101 ^f	19.6 ^f	22.8 ^f	10.9	11.6	88.8	96.2	76.4	100 f
Barium	59000	16000	mg/kg	48.7	47.9	93.2	77.2	47.9	48.6	<59	<54	182	154	346	379	56.6	53.4	179	498	89.5	44	50.3	47.9	328	735	256	787
Beryllium	140	16	mg/kg	1.2	1.2	1.4	1.3	1.2	1.2	1.2	1.3	1.7	1.4	1.8	1.9	1.3	1.1	1.7	3.3	1.3	1.2	1.2	1.1	2.1	3.5	1.9	3.6
Cadmium	78	78	mg/kg	<0.98	<1.0	<0.99	<1.1	<0.93	<0.91	<1.5	<1.3	4	<1.0	4.9	2.1	<0.99	<1.0	1.1	2.1	<0.95	<1.0	<0.94	< 0.96	2.3	<0.76	2.4	<0.78
Calcium	-	-	mg/kg	2950	3790	3480	3820	2160	2390	2870	2620	4620	5090	5980	7050	2080	3180	3940	9120	3180	2030	3310	3240	4000	15700	2800	17200
Chromium	-	-	mg/kg	40.3	42.2	55.4	52.4	40.8	42	42.8	47.4	98.3	67.8	297	211	44.2	42.5	110	108	47.9	44.4	40.8 ^f	39.6 f	118	59.4 ^f	129 ^f	67.6 ^f
Cobalt	590	1600	mg/kg	11.8	11	11.8	12.2	11.9	12.6	<15	<13	<14	10.8	14.7	12.4	11.8	12.4	13.5	15	10.9	12.7	12.4	12.2	21.7	13.9	24	14.1
Copper	45000	3100	mg/kg	16.1	17.8	55.7	48.8 ^f	16.5	16	27.1	15.7	354	128 ^f	595 ^f	351 ^f	21.5	18.9	120 ^f	159 ^f	20.5 f	13.2 ^f	13.9 ^f	12.4 ^f	299 f	45.3 ^f	288 ^f	60.2 ^f
Iron	-	-	mg/kg	37400	45500	39600	45800	33000	35200	34700	53300	53900	52100	54300	59900	34600	38400	48500	55500	45400	48800	36800	36900	62700	73700	63900	79300
Lead	800	400	mg/kg	16.3	16.1	39	31.6	16.8	16.7	23.8	20.7	242	74.7 ^f	366 ^f	207 ^f	24.2	17.2	82.6 ^f	95.4 ^f	20.1 ^f	17.4 ^f	16.4	15.7	180 ^f	32.2 ^f	181 ^f	41.2 ^f
Magnesium	-	-	mg/kg	9160	8820	7860	8220	8580	8770	8760	9650	6890	6230	8740	5970	9420	9170	7410	4840	7980	8920	9310	9280	7670	5930	9910	6900
Manganese	5900	11000	mg/kg	405	449	500	556 ^f	340	485	278	377	260	278 ^f	391 ^f	290 ^f	387	450	377 ^f	170 ^f	383 ^f	393 ^f	491 ^f	418 ^f	547 ^f	157 ^f	556 ^f	187 ^f
Mercury	65	23	mg/kg	< 0.049	< 0.055	0.9	0.075	<0.048	< 0.051	0.11	0.084	2	0.23	9.3	6.4	0.071	< 0.051	1.1	1.9	0.062	< 0.050	<0.052	<0.051	500	500	500	500
Nickel	23000	1600	mg/kg	31.1	29.7	34.1	34.8	31	32.6	30.8	36.9	60.5	37.7	63.1	71.3	34.4	33.3	47.1	79.4	34.5	33.5	31.8	31.5	53.5	41.2	57.2	43
Potassium	-	-	mg/kg	4890	4960	4290	4610	4830	4970	5270	6160	3450	3460	4200	3260	5130	4820	4310	2660	4390	4940	5160	5140	4550	2790	5830	3230
Selenium	5700	390	mg/kg	<3.9	<8.2	<4.0	<8.6 f	<3.7	<3.6	<5.9	<11	<5.5	<8.1 ^f	9.5 ^f	<7.3 f	<4.0	<4.1	<7.9 ^f	<7.5 ^f	<7.6 f	<8.0 f	<7.5 ^f	<7.7 ^f	<11 ^f	<15 ^f	<12 ^f	<16 ^f
Silver	5700	390	mg/kg	<0.98	<2.0	< 0.99	<2.1 ^f	< 0.93	<0.91	<1.5	<2.7	3.6	<2.0 ^f	5.1 ^f	2.8 ^f	< 0.99	<1.0	<2.0 f	<1.9 ^f	<1.9 ^f	<2.0 f	<1.9 ^f	<1.9 ^f	<2.7 ^f	<3.8 ^f	<3.0 ^f	<3.9 ^f
Sodium	-	-	mg/kg	3900	3130	4350	3610	7420	7310	9670	9190	11900	7070	9380	6290	7900	7420	6760	6230	5760	6670	8750	9080	5630	4560	8010	5800
Thallium	-	-	mg/kg	<2.0	<4.1	<2.0	<4.3 ^f	<1.9	<1.8	<3.0	<5.4	<2.8	<4.1 ^f	<4.4 ^f	<3.6 f	<2.0	<2.0	<4.0 f	<3.7 ^f	<3.8 ^f	<4.0 f	<3.8 ^f	<3.8 f	<5.3 f	<7.6 f	<6.1 ^f	<7.8 ^f
Vanadium	1100	78	mg/kg	47.1	51.8	65.1	61.3	48.7	49.9	50.9	58.4	151	96.1	102	183	55.6	51.9	136	488	72	51.9	49.9	47.2	89.9	122	95.9	119
Zinc	110000	23000	mg/kg	94.1	86.6	117	115	87.1	91.7	93.2	104	586	169	562	341	92.8	89.9	160	181	86.4	94.1	83.5	82.1	288	70.7	296	99.7

Client Sample ID:				SS-25B	SS-25C	SS-26B	SS-26C	SS-27B	SS-28C	SS-29B	SS-29C	SS-30B	SS-30C	SS-31B	SS-31C	SS-32B	SS-32C	SS-33B	SS-33C	SS-34B	SS-34C	SS-35B	SS-35C
Sample Depth	NJ Non-Residential Direct	NJ Residential Direct Contact		2.0-2.5	3.5-4.0	2.0-2.5	3.5-4.0	2.5-3.0	4.5-5.0	2.0-2.5	3.5-4.0	2.0-2.5	3.5-4.0	2.5-3.0	5.0-5.5	2.5-3.0	4.5-5.0	1.0-1.5	1.5-2.0	2.5-3.0	4.5-5.0	2.0-2.5	3.5-4.0
Date Sampled:	Contact Soil	Soil	1	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		*																					
MS Volatiles (SW846 8260C)																							
Acetone	NA	70000	mg/kg	0.0298 J	0.0488 J	0.0167	0.0451	0.0383	0.0797	0.379	0.243	0.0407	0.0233 J	0.0524	0.0984	0.0445	0.0229	0.0305	0.0247	0.114	0.107	0.0616	0.0872
Benzene	5	2		ND (0.0015)	ND (0.0019)	ND (0.00060)	ND (0.0015)	ND (0.0010)	ND (0.0020)	0.0064	0.0032	ND (0.00094)	ND (0.00093)	ND (0.0013)	ND (0.0028)	ND (0.00055)	ND (0.00047)	ND (0.00088)	ND (0.00081)	ND (0.0010)	ND (0.0011)	ND (0.00076)	ND (0.00076)
Bromochloromethane	-	-	0 0	ND (0.0017)	ND (0.0021)	ND (0.00068)	ND (0.0017)	ND (0.0012)	ND (0.0022)	ND (0.0023)	ND (0.0015)	ND (0.0011)	ND (0.0011)	ND (0.0015)	ND (0.0032)	ND (0.00063)	ND (0.00054)	ND (0.0010)	ND (0.00092)	ND (0.0011)	ND (0.0012)	ND (0.00087)	ND (0.00087)
Bromodichloromethane Bromoform	3 280	1 81		ND (0.0017)	ND (0.0022) ND (0.0020)	ND (0.00071) ND (0.00064)	ND (0.0017) ND (0.0016)	ND (0.0012) ND (0.0011)	ND (0.0023) ND (0.0021)	ND (0.0023) ND (0.0021)	ND (0.0015) ND (0.0014)	ND (0.0011) ND (0.0010)	ND (0.0011) ND (0.00099)	ND (0.0015) ND (0.0014)	ND (0.0033) ND (0.0030)	ND (0.00065) ND (0.00059)	ND (0.00056) ND (0.00051)	ND (0.0010) ND (0.00094)	ND (0.00095) ND (0.00086)	ND (0.0012) ND (0.0011)	ND (0.0013) ND (0.0012)	ND (0.00090) ND (0.00081)	ND (0.00089) ND (0.00081)
Bromomethane	59	25	V V	ID (0.0016)	ND (0.0020)	ND (0.00064)	ND (0.0016)	ND (0.0011)	ND (0.0021)	ND (0.0021) ND (0.0052) a	ND (0.0014) ND (0.0034) a	ND (0.0010)	ND (0.00099)	ND (0.0014)	ND (0.0030)	ND (0.00059)	ND (0.00051)	ND (0.00094)	ND (0.00086)	ND (0.0011)	ND (0.0012) ND (0.0029) a	ND (0.00081)	ND (0.00081)
2-Butanone (MEK)	44000	3100		ND (0.014)	ND (0.018)	ND (0.0060)	ND (0.014)	ND (0.010)	ND (0.019)	0.0777	0.0298 J	ND (0.0023)	ND (0.0092)	ND (0.0034)	ND (0.028)	ND (0.0055)	ND (0.0047)	ND (0.0088)	ND (0.0080)	0.0170 J	0.0143 J	ND (0.0020)	0.0091 J
Carbon disulfide	110000	7800		0.0046 J	0.0231	ND (0.0015)	ND (0.0036)	0.0064	0.0364	0.0546	0.0272	0.0082	0.013	0.027	0.0389	0.0037	0.0052	0.0089	0.0048	0.0054	0.0030 J	0.0054	0.0089
Carbon tetrachloride	4	2		ND (0.0021)	ND (0.0027)	ND (0.00088)	ND (0.0021)	ND (0.0015)	ND (0.0029)	ND (0.0029)	ND (0.0019)	ND (0.0014)	ND (0.0013)	ND (0.0019)	ND (0.0041)	ND (0.00080)	ND (0.00069)	ND (0.0013)	ND (0.0012)	ND (0.0015)	ND (0.0016)	ND (0.0011)	ND (0.0011)
Chlorobenzene	7400	510	J J	ND (0.0014)	ND (0.0017)	ND (0.00056)	ND (0.0014)	ND (0.00095)	ND (0.0018)	ND (0.0019)	ND (0.0012)	ND (0.00088)	ND (0.00087)	ND (0.0012)	ND (0.0026)	ND (0.00052)	ND (0.00044)	ND (0.00083)	ND (0.00076)	ND (0.00094)	ND (0.0010)	ND (0.00072)	ND (0.00071)
Chloroethane Chloroform	1100	220 0.6	0 0	ND (0.0026)	ND (0.0034)	ND (0.0011) ND (0.00059)	ND (0.0027) ND (0.0014)	ND (0.0018)	ND (0.0036) ND (0.0019)	ND (0.0036) a ND (0.0020)	ND (0.0024) a ND (0.0013)	ND (0.0017) ND (0.00093)	ND (0.0017) ND (0.00091)	ND (0.0023) a ND (0.0013)	ND (0.0051) a ND (0.0028)	ND (0.0010) a ND (0.00054)	ND (0.00086) a	ND (0.0016) ND (0.00087)	ND (0.0015) ND (0.00080)	ND (0.0018) a ND (0.00099)	ND (0.0020) a ND (0.0011)	ND (0.0014) a ND (0.00075)	ND (0.0014) a ND (0.00075)
Chloromethane	12	4		ND (0.0014)	ND (0.0018)	ND (0.00059)	ND (0.0014)	ND (0.0010)	ND (0.0019)	ND (0.0020)	ND (0.0013)	ND (0.00093)	ND (0.00091)	ND (0.0013)	ND (0.0028)	ND (0.00054)	ND (0.00047)	ND (0.00087)	ND (0.00080)	ND (0.00099)	ND (0.0011)	ND (0.00075)	ND (0.00075)
Cyclohexane	-	-	0 0	ND (0.0016)	ND (0.0020)	ND (0.00065)	ND (0.0016)	ND (0.0011)	ND (0.0021)	0.0149	0.0095	ND (0.0010)	ND (0.0010)	ND (0.0014)	ND (0.0030)	ND (0.0025)	ND (0.0025)	ND (0.00095)	ND (0.00087)	ND (0.0032)	ND (0.0030)	ND (0.00082)	ND (0.00082)
1,2-Dibromo-3-chloropropane	0.2	0.08	mg/kg N	ID (0.0032)	ND (0.0041)	ND (0.0013)	ND (0.0032)	ND (0.0023)	ND (0.0043)	ND (0.0044)	ND (0.0029)	ND (0.0021)	ND (0.0021)	ND (0.0028)	ND (0.0062)	ND (0.0012)	ND (0.0010)	ND (0.0020)	ND (0.0018)	ND (0.0022)	ND (0.0024)	ND (0.0017)	ND (0.0017)
Dibromochloromethane	8	3	99	ND (0.0013)	ND (0.0017)	ND (0.00054)	ND (0.0013)	ND (0.00091)	ND (0.0018)	ND (0.0018)	ND (0.0012)	ND (0.00084)	ND (0.00083)	ND (0.0011)	ND (0.0025)	ND (0.00049)	ND (0.00042)	ND (0.00079)	ND (0.00072)	ND (0.00090)	ND (0.00097)	ND (0.00068)	ND (0.00068)
1,2-Dibromoethane	0.04 59000	0.008 5300		ND (0.0013)	ND (0.0016)	ND (0.00052)	ND (0.0013)	ND (0.00087)	ND (0.0017)	ND (0.0017)	ND (0.0011)	ND (0.00081)	ND (0.00080)	ND (0.0011)	ND (0.0024)	ND (0.00047)	ND (0.00041)	ND (0.00076)	ND (0.00070)	ND (0.00087)	ND (0.00093)	ND (0.00066)	ND (0.00065)
1,2-Dichlorobenzene 1,3-Dichlorobenzene	59000	5300		ND (0.0012) ND (0.0014)	ND (0.0015) ND (0.0018)	ND (0.00049) ND (0.00057)	ND (0.0012) ND (0.0014)	ND (0.00082) ND (0.00097)	ND (0.0016) ND (0.0019)	ND (0.0016) ND (0.0019)	ND (0.0010) ND (0.0012)	ND (0.00076) ND (0.00089)	ND (0.00075) ND (0.00088)	ND (0.0010) ND (0.0012)	ND (0.0023) ND (0.0027)	ND (0.00045) ND (0.00052)	ND (0.00038) ND (0.00045)	ND (0.00071) ND (0.00084)	ND (0.00065) ND (0.00077)	ND (0.00081) ND (0.00096)	ND (0.00088) ND (0.0010)	ND (0.00062) ND (0.00073)	ND (0.00061) ND (0.00072)
1.4-Dichlorobenzene	13	5		ND (0.0014)	ND (0.0017)	ND (0.00055)	ND (0.0014)	ND (0.00093)	ND (0.0018)	ND (0.0018)	ND (0.0012)	ND (0.00086)	ND (0.00084)	ND (0.0012)	ND (0.0021)	ND (0.00052)	ND (0.00043)	ND (0.00081)	ND (0.00074)	ND (0.00092)	ND (0.0009)	ND (0.00070)	ND (0.00069)
Dichlorodifluoromethane	230000	490		ND (0.0024)	ND (0.0031)	ND (0.0010)	ND (0.0025)	ND (0.0017)	ND (0.0033)	ND (0.0033)	ND (0.0022)	ND (0.0016)	ND (0.0016)	ND (0.0021)	ND (0.0047)	ND (0.00093)	ND (0.00080)	ND (0.0015)	ND (0.0014)	ND (0.0017)	ND (0.0018)	ND (0.0013)	ND (0.0013)
1,1-Dichloroethane	24	8	mg/kg N	ND (0.0015)	ND (0.0019)	ND (0.00061)	ND (0.0015)	ND (0.0010)	ND (0.0020)	ND (0.0020)	ND (0.0013)	ND (0.00096)	ND (0.00094)	ND (0.0013)	ND (0.0029)	ND (0.00056)	ND (0.00048)	ND (0.00090)	ND (0.00082)	ND (0.0010)	ND (0.0011)	ND (0.00078)	ND (0.00077)
1,2-Dichloroethane	3	0.9	0 0	ND (0.0018)	ND (0.0023)	ND (0.00075)	ND (0.0018)	ND (0.0013)	ND (0.0024)	ND (0.0025)	ND (0.0016)	ND (0.0012)	ND (0.0012)	ND (0.0016)	ND (0.0035)	ND (0.00069)	ND (0.00059)	ND (0.0011)	ND (0.0010)	ND (0.0013)	ND (0.0014)	ND (0.00095)	ND (0.00095)
1,1-Dichloroethene	150	11 230		ND (0.0025)	ND (0.0032)	ND (0.0010)	ND (0.0025)	ND (0.0018)	ND (0.0034)	ND (0.0035)	ND (0.0023)	ND (0.0016)	ND (0.0016)	ND (0.0022)	ND (0.0049)	ND (0.00096)	ND (0.00082)	ND (0.0015)	ND (0.0014)	ND (0.0018)	ND (0.0019)	ND (0.0013)	ND (0.0013)
cis-1,2-Dichloroethene trans-1 2-Dichloroethene	560 720	300	J J	ND (0.0037)	ND (0.0047)	ND (0.0015) ND (0.0011)	ND (0.0037)	ND (0.0026)	ND (0.0050) ND (0.0035)	ND (0.0050)	ND (0.0033)	ND (0.0024)	ND (0.0023) ND (0.0016)	ND (0.0032) ND (0.0023)	ND (0.0071) ND (0.0050)	ND (0.0014)	ND (0.0012)	ND (0.0022) ND (0.0016)	ND (0.0020)	ND (0.0026) ND (0.0018)	ND (0.0028)	ND (0.0019) ND (0.0013)	ND (0.0019) ND (0.0013)
1,2-Dichloropropane	5	2		ND (0.0026)	ND (0.0033)	ND (0.00065)	ND (0.0026)	ND (0.0010)	ND (0.0033)	ND (0.0033)	ND (0.0023)	ND (0.0017)	ND (0.0010)	ND (0.0023)	ND (0.0030)	ND (0.00059)	ND (0.00051)	ND (0.00095)	ND (0.00087)	ND (0.0011)	ND (0.0013)	ND (0.00082)	ND (0.00082)
cis-1,3-Dichloropropene	7	2	mg/kg N	ID (0.0014)	ND (0.0017)	ND (0.00056)	ND (0.0014)	ND (0.00095)	ND (0.0018)	ND (0.0019)	ND (0.0012)	ND (0.00088)	ND (0.00086)	ND (0.0012)	ND (0.0026)	ND (0.00051)	ND (0.00044)	ND (0.00082)	ND (0.00075)	ND (0.00094)	ND (0.0010)	ND (0.00071)	ND (0.00071)
trans-1,3-Dichloropropene	7	2	mg/kg N	ND (0.0013)	ND (0.0016)	ND (0.00052)	ND (0.0013)	ND (0.00088)	ND (0.0017)	ND (0.0017)	ND (0.0011)	ND (0.00081)	ND (0.00080)	ND (0.0011)	ND (0.0024)	ND (0.00048)	ND (0.00041)	ND (0.00077)	ND (0.00070)	ND (0.00087)	ND (0.00094)	ND (0.00066)	ND (0.00066)
Ethylbenzene	110000	7800	J J	ND (0.0021)	ND (0.0027)	ND (0.00088)	ND (0.0021)	ND (0.0015)	ND (0.0029)	0.0189	ND (0.0019)	ND (0.0014)	ND (0.0014)	ND (0.0019)	ND (0.0041)	ND (0.00081)	ND (0.00069)	ND (0.0013)	ND (0.0012)	ND (0.0015)	ND (0.0016)	ND (0.0011)	ND (0.0011)
Freon 113 2-Hexanone	-	-	0 0	ND (0.0029)	ND (0.0038)	ND (0.0012) ND (0.0020)	ND (0.0030) ND (0.0049)	ND (0.0021)	ND (0.0040) ND (0.0066)	ND (0.0040)	ND (0.0026) ND (0.0044)	ND (0.0019) ND (0.0032)	ND (0.0019) ND (0.0031)	ND (0.0026) ND (0.0043)	ND (0.0057) ND (0.0094)	ND (0.0011) ND (0.0019)	ND (0.00096)	ND (0.0018) ND (0.0030)	ND (0.0016)	ND (0.0020)	ND (0.0022) ND (0.0037)	ND (0.0015)	ND (0.0015) ND (0.0026)
Isopropylbenzene	-	-		ND (0.0049)	ND (0.0034)	ND (0.0020)	ND (0.0049)	ND (0.0034)	ND (0.0006)	0.0072 J	0.0026 J	ND (0.0032)	ND (0.0031)	ND (0.0024)	ND (0.0052)	ND (0.0019)	ND (0.0010)	ND (0.0036)	ND (0.0027)	ND (0.0034)	ND (0.0037)	ND (0.0020)	ND (0.0020)
Methyl Acetate	NA	78000		ID (0.0054)	ND (0.0068)	ND (0.0022)	ND (0.0054)	ND (0.0037)	ND (0.0072)	ND (0.0073)	ND (0.0048)	ND (0.0035)	ND (0.0034)	ND (0.0047)	ND (0.010)	ND (0.0020)	ND (0.0017)	ND (0.0033)	ND (0.0030)	ND (0.0037)	ND (0.0040)	ND (0.0028)	ND (0.0028)
Methylcyclohexane	-	-	mg/kg N	ID (0.0027)	ND (0.0035)	ND (0.0011)	ND (0.0027)	ND (0.0019)	ND (0.0037)	0.161	0.0567	ND (0.0018)	ND (0.0017)	ND (0.0024)	ND (0.0053)	ND (0.0010)	ND (0.00089)	ND (0.0017)	ND (0.0015)	ND (0.0019)	ND (0.0020)	ND (0.0014)	ND (0.0014)
Methyl Tert Butyl Ether	320	110	99	ND (0.0014)	ND (0.0017)	ND (0.00056)	0.004	ND (0.00095)	ND (0.0018)	ND (0.0019)	ND (0.0012)	ND (0.00088)	ND (0.00086)	ND (0.0012)	ND (0.0026)	ND (0.00051)	ND (0.00044)	ND (0.00082)	ND (0.00075)	ND (0.00094)	ND (0.0010)	0.00075 J	0.00079 J
4-Methyl-2-pentanone(MIBK)	-	-		ID (0.0060)	ND (0.0077)	ND (0.0025)	ND (0.0060)	ND (0.0042)	ND (0.0081)	ND (0.0082)	ND (0.0054)	ND (0.0039)	ND (0.0038)	ND (0.0053)	ND (0.012)	ND (0.0023)	ND (0.0020)	ND (0.0037)	ND (0.0033)	ND (0.0042)	ND (0.0045)	ND (0.0032)	ND (0.0031)
Methylene chloride Styrene	230 260	46 90		ND (0.0096) ND (0.0022)	ND (0.012) ND (0.0028)	ND (0.0040) ND (0.00092)	ND (0.0097) ND (0.0022)	ND (0.0067) ND (0.0015)	ND (0.013) ND (0.0030)	ND (0.013) ND (0.0030)	ND (0.0086) ND (0.0020)	ND (0.0062) ND (0.0014)	ND (0.0061) ND (0.0014)	ND (0.0085) ND (0.0019)	ND (0.019) ND (0.0043)	ND (0.0037) ND (0.00084)	ND (0.0031) ND (0.00072)	ND (0.0059) ND (0.0013)	ND (0.0054) ND (0.0012)	ND (0.0067) ND (0.0015)	ND (0.0072) ND (0.0017)	ND (0.0051) ND (0.0012)	ND (0.0050) ND (0.0012)
1,1,2,2-Tetrachloroethane	3	1		ND (0.0022)	ND (0.0028)	ND (0.00092)	ND (0.0022) ND (0.0015)	ND (0.0015)	ND (0.0030)	ND (0.0030)	ND (0.0020) ND (0.0013)	ND (0.0014)	ND (0.0014)	ND (0.0019)	ND (0.0043)	ND (0.00064)	ND (0.00072)	ND (0.0013)	ND (0.0012)	ND (0.0015)	ND (0.0017)	ND (0.0012)	ND (0.0012) ND (0.00078)
Tetrachloroethene	1500	43		ND (0.0018)	ND (0.0023)	ND (0.00074)	ND (0.0018)	ND (0.0012)	ND (0.0024)	ND (0.0024)	ND (0.0016)	ND (0.0012)	ND (0.0011)	ND (0.0016)	ND (0.0034)	ND (0.00068)	ND (0.00058)	ND (0.0011)	ND (0.00099)	ND (0.0012)	ND (0.0011)	ND (0.00093)	ND (0.00093)
Toluene	91000	6300		ND (0.0014)	ND (0.0019)	ND (0.00060)	ND (0.0015)	ND (0.0010)	ND (0.0020)	0.0023 J	ND (0.0013)	ND (0.00094)	ND (0.00092)	ND (0.0013)	ND (0.0028)	ND (0.00055)	ND (0.00047)	ND (0.00088)	ND (0.00080)	ND (0.0010)	ND (0.0011)	ND (0.00076)	ND (0.00076)
1,2,3-Trichlorobenzene	•	-	0 0	ND (0.0039)	ND (0.0049)	ND (0.0016)	ND (0.0039)	ND (0.0027)	ND (0.0052)	ND (0.0053)	ND (0.0034)	ND (0.0025)	ND (0.0025)	ND (0.0034)	ND (0.0074)	ND (0.0015)	ND (0.0013)	ND (0.0023)	ND (0.0021)	ND (0.0027)	ND (0.0029)	ND (0.0020)	ND (0.0020)
1,2,4-Trichlorobenzene	820	73		ID (0.0039)	ND (0.0049)	ND (0.0016)	ND (0.0039)	ND (0.0027)	ND (0.0052)	ND (0.0053)	ND (0.0034)	ND (0.0025)	ND (0.0025)	ND (0.0034)	ND (0.0074)	ND (0.0015)	ND (0.0013)	ND (0.0023)	ND (0.0021)	ND (0.0027)	ND (0.0029)	ND (0.0020)	ND (0.0020)
1,1,1-Trichloroethane	NA 6	160000	J J	ND (0.0016)	ND (0.0021)	ND (0.00068) ND (0.00054)	ND (0.0017)	ND (0.0011) ND (0.00092)	ND (0.0022) ND (0.0018)	ND (0.0022)	ND (0.0015)	ND (0.0011) ND (0.00085)	ND (0.0010) ND (0.00084)	ND (0.0014)	ND (0.0032) ND (0.0025)	ND (0.00062)	ND (0.00053)	ND (0.0010)	ND (0.00091)	ND (0.0011)	ND (0.0012)	ND (0.00086) ND (0.00069)	ND (0.00086)
Trichloroethene	10	3	99	ID (0.0013)	ND (0.0017)	ND (0.00034)	ND (0.0013)	ND (0.00092)	ND (0.0018)	ND (0.0018)	ND (0.0012)	ND (0.00083)	ND (0.00084)	ND (0.0012)	ND (0.0023)	ND (0.00030)	ND (0.00043)	ND (0.00080)	ND (0.00073)	ND (0.00091)	ND (0.00098)	ND (0.00009)	ND (0.0005)
Trichlorofluoromethane	340000	23000		ID (0.0026)	ND (0.0034)	ND (0.0011)	ND (0.0026)	ND (0.0018)	ND (0.0035)	ND (0.0036)	ND (0.0023)	ND (0.0017)	ND (0.0017)	ND (0.0023)	ND (0.0051)	ND (0.0011)	ND (0.00085)	ND (0.0016)	ND (0.0015)	ND (0.0018)	ND (0.0020)	ND (0.0014)	ND (0.0014)
Vinyl chloride	2	0.7		D (0.0018) a	ND (0.0023) a	ND (0.00075)	ND (0.0018)	ND (0.0013) a	ND (0.0024) a	ND (0.0025)	ND (0.0016)	ND (0.0012) a	ND (0.0012) a	ND (0.0016)	ND (0.0035)	ND (0.00069)	ND (0.00059)	ND (0.0011) a	ND (0.0010) a	ND (0.0013)	ND (0.0013)	ND (0.00095)	ND (0.00094)
m,p-Xylene	170000	12000	J J	ND (0.0029)	ND (0.0037)	ND (0.0012)	ND (0.0029)	ND (0.0020)	ND (0.0039)	0.0399	0.0073	ND (0.0019)	ND (0.0018)	ND (0.0025)	ND (0.0055)	ND (0.0011)	ND (0.00094)	ND (0.0017)	ND (0.0016)	ND (0.0020)	ND (0.0021)	ND (0.0015)	ND (0.0015)
o-Xylene	170000	12000	0 0	ND (0.0022)	ND (0.0029)	ND (0.00093)	ND (0.0023)	ND (0.0016)	ND (0.0030)	0.021	0.0207	ND (0.0015)	ND (0.0014)	ND (0.0020)	ND (0.0043)	ND (0.00085)	ND (0.00073)	ND (0.0014)	ND (0.0012)	ND (0.0016)	ND (0.0017)	ND (0.0012)	ND (0.0012)
Xylene (total)	170000	12000	mg/kg N	ID (0.0022)	ND (0.0029)	ND (0.00093)	ND (0.0023)	ND (0.0016)	ND (0.0030)	0.0609	0.028	ND (0.0015)	ND (0.0014)	ND (0.0020)	ND (0.0043)	ND (0.00085)	ND (0.00073)	ND (0.0014)	ND (0.0012)	ND (0.0016)	ND (0.0017)	ND (0.0012)	ND (0.0012)
MS Volatile TIC																							
Total TIC, Volatile	-	-	mg/kg	0	0	0	0	0	0	2.95 J	0.587 J	0	0	0	0.039 J	0	0.1693 J	0	0	0.182 J	0.121 J	2.251 J	0

Client Sample ID:		N.I Residential		SS-25B 2.0-2.5	SS-25C 3.5-4.0	SS-26B 2.0-2.5	SS-26C 3.5-4.0	SS-27B 2.5-3.0	SS-28C 4.5-5.0	SS-29B	SS-29C	SS-30B 2.0-2.5	SS-30C 3.5-4.0	SS-31B 2.5-3.0	SS-31C 5.0-5.5	SS-32B 2.5-3.0	SS-32C 4.5-5.0	SS-33B	SS-33C	SS-34B 2.5-3.0	SS-34C 4.5-5.0	SS-35B	SS-35C 3.5-4.0
Sample Depth Date Sampled:	NJ Non-Residential Direct Contact Soil	Direct Contact		2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/21/2019	2.0-2.5	3.5-4.0 2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	1.0-1.5	1.5-2.0 2/21/2019	2/22/2019	2/22/2019	2.0-2.5	2/22/2019
Matrix:		00		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
MS Semi-volatiles (SW846 8270)	0)																						
		240		ND (0.045)	ND (0.050)	ND (0.000)	ND (0.005)	ND (0.000)	ND (0.050)	ND (0.057)	ND (0.000)	ND (0 000)	ND (0.000)	ND (0.000)	ND (0.070)	ND (0.004)	ND (0.004)	ND (0.004)	ND (0.000)	ND (0.00E)	ND (0.000)	ND (0.000)	ND (0.000)
2-Chlorophenol 4-Chloro-3-methyl phenol	2200	310	mg/kg mg/kg	ND (0.045) ND (0.055)	ND (0.058) ND (0.072)	ND (0.026) ND (0.032)	ND (0.035) ND (0.044)	ND (0.032) ND (0.040)	ND (0.052) ND (0.064)	ND (0.057) ND (0.071)	ND (0.038) ND (0.048)	ND (0.030) ND (0.038)	ND (0.030) ND (0.038)	ND (0.039) ND (0.048)	ND (0.079) ND (0.098)	ND (0.024) ND (0.030)	ND (0.021) ND (0.026)	ND (0.031) ND (0.039)	ND (0.030) ND (0.037)	ND (0.035) ND (0.043)	ND (0.036) ND (0.044)	ND (0.028) ND (0.034)	ND (0.026) ND (0.033)
2,4-Dichlorophenol	2100	180	mg/kg	ND (0.077)	ND (0.10)	ND (0.045)	ND (0.061)	ND (0.056)	ND (0.089)	ND (0.099)	ND (0.066)	ND (0.053)	ND (0.052)	ND (0.066)	ND (0.14)	ND (0.042)	ND (0.036)	ND (0.054)	ND (0.052)	ND (0.060)	ND (0.062)	ND (0.048)	ND (0.046)
2,4-Dimethylphenol 2,4-Dinitrophenol	14000 1400	1200 120	mg/kg mg/kg	ND (0.16) ND (0.34)	ND (0.21) ND (0.44)	ND (0.094) ND (0.20)	ND (0.13) ND (0.27)	ND (0.12) ND (0.25)	ND (0.19) ND (0.39)	ND (0.21) ND (0.44)	ND (0.14) ND (0.29)	ND (0.11) ND (0.23)	ND (0.11) ND (0.23)	ND (0.14) ND (0.29)	ND (0.29) ND (0.60)	ND (0.088) ND (0.18)	ND (0.075) ND (0.16)	ND (0.11) ND (0.24)	ND (0.11) ND (0.23)	ND (0.13) ND (0.26)	ND (0.13) ND (0.27)	ND (0.099) ND (0.21)	ND (0.095) ND (0.20)
4,6-Dinitro-o-cresol	68	6	mg/kg	ND (0.097)	ND (0.13)	ND (0.057)	ND (0.076)	ND (0.070)	ND (0.11)	ND (0.12)	ND (0.083)	ND (0.066)	ND (0.066)	ND (0.083)	ND (0.17)	ND (0.053)	ND (0.045)	ND (0.068)	ND (0.065)	ND (0.075)	ND (0.077)	ND (0.060)	ND (0.057)
2-Methylphenol 3&4-Methylphenol	3400	310	mg/kg mg/kg	ND (0.058) ND (0.074)	ND (0.075) ND (0.096)	ND (0.034) ND (0.043)	ND (0.046) ND (0.059)	ND (0.042) ND (0.054)	ND (0.067) ND (0.086)	ND (0.074) ND (0.095)	ND (0.050) ND (0.064)	ND (0.039) ND (0.051)	ND (0.039) ND (0.050)	ND (0.050) ND (0.064)	ND (0.10) ND (0.13)	ND (0.031) ND (0.040)	ND (0.027) ND (0.035)	ND (0.040) ND (0.052)	ND (0.039) ND (0.050)	ND (0.045) ND (0.058)	ND (0.046) ND (0.059)	ND (0.036) ND (0.046)	ND (0.034) ND (0.044)
2-Nitrophenol	-	-	mg/kg	ND (0.060)	ND (0.077)	ND (0.035)	ND (0.047)	ND (0.043) a	ND (0.069) a	ND (0.077)	ND (0.051)	ND (0.041) a	ND (0.041) a	ND (0.052)	ND (0.11)	ND (0.033)	ND (0.028)	ND (0.042) a	ND (0.040) a	ND (0.046)	ND (0.048)	ND (0.037)	ND (0.035)
4-Nitrophenol Pentachlorophenol	3	0.9	mg/kg mg/kg	ND (0.24) ND (0.085)	ND (0.31) ND (0.11)	ND (0.14) ND (0.050)	ND (0.19) ND (0.067)	ND (0.17) ND (0.062)	ND (0.28) ND (0.098)	ND (0.31) ° ND (0.11)	ND (0.21) a ND (0.073)	ND (0.16) ND (0.058)	ND (0.16) ND (0.058)	ND (0.21) ND (0.073)	ND (0.43) ND (0.15)	ND (0.13) ND (0.046)	ND (0.11) ° ND (0.040)	ND (0.17) ND (0.059)	ND (0.16) ND (0.057)	ND (0.19) ND (0.066)	ND (0.19) ND (0.068)	ND (0.15) ND (0.052)	ND (0.14) ND (0.050)
Phenol	210000	18000	mg/kg	ND (0.047)	ND (0.061)	ND (0.028)	ND (0.037)	ND (0.034)	ND (0.055)	ND (0.061)	ND (0.041)	ND (0.032)	ND (0.032)	ND (0.041)	ND (0.084)	ND (0.026)	ND (0.022)	ND (0.033)	ND (0.032)	ND (0.037)	ND (0.038)	ND (0.029)	ND (0.028)
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	68000	6100	mg/kg mg/kg	ND (0.060) ND (0.068)	ND (0.077) ND (0.088)	ND (0.035) ND (0.040)	ND (0.047) ND (0.053)	ND (0.043) a ND (0.049) a	ND (0.069) a ND (0.078) a	ND (0.077) ND (0.087)	ND (0.051) ND (0.058)	ND (0.041) a ND (0.046) a	ND (0.041) a ND (0.046) a	ND (0.052) ND (0.058)	ND (0.11) ND (0.12)	ND (0.033) ND (0.037)	ND (0.028) ND (0.032)	ND (0.042) a ND (0.047) a	ND (0.040) a ND (0.045) a	ND (0.047) ND (0.053)	ND (0.048) ND (0.054)	ND (0.037) ND (0.042)	ND (0.035) ND (0.040)
2,4,6-Trichlorophenol	74	19	mg/kg	ND (0.054)	ND (0.070)	ND (0.032)	ND (0.043)	ND (0.039)	ND (0.062)	ND (0.069)	ND (0.046)	ND (0.037)	ND (0.037)	ND (0.046)	ND (0.096)	ND (0.029)	ND (0.025)	ND (0.038)	ND (0.036)	ND (0.042)	ND (0.043)	ND (0.033)	ND (0.032)
Acenaphthene Acenaphthylene	37000 300000	3400 NA	mg/kg mg/kg	ND (0.031) ND (0.046)	ND (0.040) ND (0.059)	ND (0.018) ND (0.027)	ND (0.025) ND (0.036)	ND (0.023) ND (0.033)	ND (0.036) ND (0.053)	ND (0.040) ND (0.059)	ND (0.027) ND (0.039)	ND (0.021) ND (0.031)	ND (0.021) ND (0.031)	ND (0.027) ND (0.040)	ND (0.055) ND (0.081)	ND (0.017) ND (0.025)	ND (0.015) ND (0.021)	ND (0.022) ND (0.032)	ND (0.021) ND (0.031)	ND (0.024) ND (0.036)	ND (0.025) 0.0646 J	ND (0.019) ND (0.028)	ND (0.018) ND (0.027)
Acetophenone	5	2	mg/kg	ND (0.019)	ND (0.025)	0.0251 J	ND (0.015)	ND (0.014)	ND (0.023)	ND (0.025)	ND (0.017)	ND (0.013)	ND (0.013)	ND (0.017)	ND (0.034)	ND (0.011)	ND (0.0091)	ND (0.014)	ND (0.013)	ND (0.015)	ND (0.016)	ND (0.012)	ND (0.011)
Anthracene Atrazine	30000 2400	17000 210	mg/kg mg/kg	ND (0.055) ND (0.039) a	ND (0.072) ND (0.050) a	ND (0.032) ND (0.023)	ND (0.044) ND (0.031)	ND (0.040) ND (0.028)	ND (0.064) ND (0.045)	ND (0.071) ND (0.050)	0.0612 J ND (0.033)	ND (0.038) ND (0.026)	ND (0.038) ND (0.026)	ND (0.048) ND (0.033)	ND (0.098) ND (0.069)	ND (0.030) ND (0.021)	ND (0.026) ND (0.018)	ND (0.039) ND (0.027)	ND (0.037) ND (0.026)	ND (0.043) ND (0.030)	0.0708 J ND (0.031)	ND (0.034) ND (0.024)	ND (0.033) ND (0.023)
Benzo(a)anthracene	17	5	mg/kg	ND (0.026)	ND (0.033)	ND (0.015)	ND (0.020)	0.0871	ND (0.030)	ND (0.033)	0.0973	ND (0.017)	ND (0.017)	0.0482 J	ND (0.045)	0.0186 J	ND (0.012)	ND (0.018)	ND (0.017)	0.0654 J	0.294	0.0230 J	ND (0.015)
Benzo(a)pyrene Benzo(b)fluoranthene	2 17	0.5 5	mg/kg mg/kg	ND (0.041) ND (0.040)	ND (0.053) ND (0.052)	ND (0.024) ND (0.023)	ND (0.032) ND (0.032)	0.109 ^d 0.106	ND (0.048) a ND (0.046)	ND (0.053) ND (0.051) ^d	0.0817 0.109 ^d	ND (0.028) a ND (0.027)	ND (0.028) a ND (0.027)	0.0489 J 0.0503 J	ND (0.073) ND (0.071)	ND (0.022) 0.0221 J	0.0241 J 0.0289 J ^d	ND (0.029) a ND (0.028)	ND (0.028) a ND (0.027)	0.0661 J 0.0650 J	0.257 0.255	ND (0.025) ND (0.025)	ND (0.024) ND (0.024)
Benzo(g,h,i)perylene	30000	380000	mg/kg	ND (0.045)	ND (0.059)	ND (0.026)	ND (0.036)	0.0715	ND (0.052)	ND (0.058)	0.0653 J	ND (0.031)	ND (0.031)	ND (0.039)	ND (0.080)	ND (0.025)	ND (0.021)	ND (0.032)	ND (0.030)	0.0469 J	0.137	ND (0.028)	ND (0.027)
Benzo(k)fluoranthene 4-Bromophenyl phenyl ether	170	45 -	mg/kg mg/kg	ND (0.042) ND (0.035) ^b	ND (0.055) ND (0.045) ^b	ND (0.025) ND (0.020)	ND (0.033) ND (0.028) ^b	0.0399 J ND (0.025)	ND (0.049) ND (0.040)	ND (0.054) ND (0.045)	ND (0.036) ND (0.030)	ND (0.029) ND (0.024)	ND (0.029) ND (0.024)	ND (0.036) ND (0.030) b	ND (0.075) ND (0.062) ^b	ND (0.023) ND (0.019) ^b	ND (0.020) ND (0.016)	ND (0.029) ND (0.024)	ND (0.028) ND (0.023)	0.0346 J ND (0.027) ^b	0.102 ND (0.028) ^b	ND (0.026) ND (0.022) b	ND (0.025) ND (0.021) ^b
Butyl benzyl phthalate	14000	1200	mg/kg	ND (0.022) e	ND (0.029) °	ND (0.013)	ND (0.017) °	ND (0.016) a	ND (0.026) a	ND (0.028) °	ND (0.019) a	ND (0.015) a	ND (0.015) a	ND (0.019) °	ND (0.039) °	ND (0.012) e	ND (0.010) °	ND (0.015) a	ND (0.015) a	ND (0.017) °	ND (0.018) a	ND (0.014) °	ND (0.013) e
1,1'-Biphenyl Benzaldehyde	240 68000	61 6100	mg/kg mg/kg	ND (0.012) ND (0.022)	ND (0.016) ND (0.029)	ND (0.0072) ND (0.013)	ND (0.0098) ND (0.018)	0.0093 J ND (0.016)	ND (0.014) ND (0.026)	0.0283 J ND (0.029)	0.0137 J ND (0.019)	ND (0.0084) ND (0.015)	ND (0.0084) ND (0.015)	ND (0.011) ND (0.019)	ND (0.022)	ND (0.0067) ND (0.012)	ND (0.0058) ND (0.010)	ND (0.0086) ND (0.016)	ND (0.0083) ND (0.015)	ND (0.0096) ND (0.017)	ND (0.0099) ND (0.018)	ND (0.0077) ND (0.014)	ND (0.0073) ND (0.013)
2-Chloronaphthalene	-	-	mg/kg	ND (0.022)	ND (0.028)	ND (0.013)	ND (0.017)	ND (0.016)	ND (0.025)	ND (0.028)	ND (0.018)	ND (0.015)	ND (0.015)	ND (0.019)	ND (0.038)	ND (0.012)	ND (0.010)	ND (0.015)	ND (0.014)	ND (0.017)	ND (0.017)	ND (0.013)	ND (0.013)
4-Chloroaniline Carbazole	96	24	mg/kg mg/kg	ND (0.033) ND (0.013)	ND (0.042) ND (0.017)	ND (0.019) ND (0.0077)	ND (0.026) ND (0.010)	ND (0.024) ND (0.0095)	ND (0.038) ND (0.015)	ND (0.042) ND (0.017)	ND (0.028) ND (0.011)	ND (0.022) ND (0.0089)	ND (0.022) ND (0.0089)	ND (0.028) ND (0.011)	ND (0.058) ND (0.023)	ND (0.018) ND (0.0071)	ND (0.015) ND (0.0061)	ND (0.023) ND (0.0092)	ND (0.022) ND (0.0088)	ND (0.025) ND (0.010)	ND (0.026) ND (0.010)	ND (0.020) ND (0.0081)	ND (0.019) ND (0.0077)
Caprolactam	340000	31000	mg/kg	ND (0.036)	ND (0.046)	ND (0.021)	ND (0.028) a	ND (0.026)	ND (0.041)	ND (0.046)	ND (0.031)	ND (0.024)	ND (0.024)	ND (0.031) a	ND (0.063) a	ND (0.019) a	ND (0.017)	ND (0.025)	ND (0.024)	ND (0.028) a	ND (0.029) a	ND (0.022) a	ND (0.021) a
Chrysene bis(2-Chloroethoxy)methane	1700	450	mg/kg mg/kg	ND (0.028) ND (0.019)	ND (0.037) ND (0.025)	ND (0.017) ND (0.011)	ND (0.022) ND (0.015)	0.0805 ND (0.014)	ND (0.033) ND (0.022)	ND (0.037) ND (0.025)	0.144 ND (0.017)	ND (0.019) ND (0.013)	ND (0.019) ND (0.013)	0.0409 J ND (0.017)	ND (0.051) ND (0.034)	0.0166 J ND (0.011)	ND (0.013) ND (0.0090)	ND (0.020) ND (0.014)	ND (0.019) ND (0.013)	0.0628 J ND (0.015)	0.281 ND (0.015)	0.0287 J ND (0.012)	ND (0.017) ND (0.011)
bis(2-Chloroethyl)ether	2	0.4	mg/kg	ND (0.039)	ND (0.050)	ND (0.023)	ND (0.031)	ND (0.028)	ND (0.045)	ND (0.050)	ND (0.034)	ND (0.027)	ND (0.026)	ND (0.034)	ND (0.069)	ND (0.021)	ND (0.018)	ND (0.027)	ND (0.026)	ND (0.030)	ND (0.031)	ND (0.024)	ND (0.023)
2,2'-Oxybis(1-chloropropane) 4-Chlorophenyl phenyl ether	67	23	mg/kg mg/kg	ND (0.032) ND (0.029)	ND (0.042) ND (0.038)	ND (0.019) ND (0.017)	ND (0.026) ND (0.023)	ND (0.024) ND (0.021)	ND (0.038) ND (0.034)	ND (0.042) ND (0.038)	ND (0.028) ND (0.025)	ND (0.022) ND (0.020)	ND (0.022) ND (0.020)	ND (0.028) ND (0.025)	ND (0.058) ND (0.052)	ND (0.018) ND (0.016)	ND (0.015) ND (0.014)	ND (0.023) ND (0.020)	ND (0.022) ND (0.020)	ND (0.025) ND (0.023)	ND (0.026) ND (0.023)	ND (0.020) ND (0.018)	ND (0.019) ND (0.017)
2,4-Dinitrotoluene	3	0.7	mg/kg	ND (0.028)	ND (0.036)	ND (0.016)	ND (0.022)	ND (0.020)	ND (0.032)	ND (0.036)	ND (0.024)	ND (0.019)	ND (0.019)	ND (0.024)	ND (0.050)	ND (0.015)	ND (0.013)	ND (0.020)	ND (0.019)	ND (0.022)	ND (0.022)	ND (0.017)	ND (0.017)
2,6-Dinitrotoluene 3.3'-Dichlorobenzidine	3	0.7	mg/kg mg/kg	ND (0.045) ND (0.075)	ND (0.059) ND (0.098)	ND (0.027) ND (0.044)	ND (0.036) ND (0.060)	ND (0.033) ND (0.055)	ND (0.053) ND (0.087)	ND (0.058) ND (0.097)	ND (0.039) ND (0.065)	ND (0.031) ND (0.051)	ND (0.031) ND (0.051)	ND (0.039) ND (0.065)	ND (0.080) ND (0.13)	ND (0.025) ND (0.041)	ND (0.021) ND (0.035)	ND (0.032) ND (0.053)	ND (0.030) ND (0.051)	ND (0.035) ND (0.059)	ND (0.036) ND (0.060)	ND (0.028) ND (0.047)	ND (0.027) ND (0.045)
1,4-Dioxane	-	-	mg/kg	ND (0.060)	ND (0.077)	ND (0.035)	ND (0.047)	ND (0.043)	ND (0.069)	ND (0.077) °	ND (0.051) a	ND (0.041)	ND (0.041)	ND (0.052)	ND (0.11)	ND (0.033)	ND (0.028) °	ND (0.042)	ND (0.040)	ND (0.046)	ND (0.048)	ND (0.037)	ND (0.035)
Dibenzo(a,h)anthracene Dibenzofuran	2	0.5	mg/kg mg/kg	ND (0.040) ND (0.037)	ND (0.052) ND (0.048)	ND (0.023) ND (0.022)	ND (0.032) ND (0.029)	ND (0.029) a ND (0.027)	ND (0.046) a ND (0.043)	ND (0.051) ND (0.047)	0.134 ND (0.032)	ND (0.027) a ND (0.025)	ND (0.027) a ND (0.025)	ND (0.034) ND (0.032)	ND (0.071) ND (0.065)	ND (0.022) ND (0.020)	ND (0.019) ND (0.017)	ND (0.028) a ND (0.026)	ND (0.027) a ND (0.025)	ND (0.031) ND (0.029)	ND (0.032) ND (0.029)	ND (0.025) ND (0.023)	ND (0.024) ND (0.022)
Di-n-butyl phthalate	68000	6100	mg/kg	ND (0.015)	ND (0.019)	ND (0.0086)	ND (0.012)	ND (0.011)	ND (0.017)	ND (0.019)	ND (0.013)	ND (0.010)	ND (0.010)	ND (0.013)	ND (0.026)	ND (0.0080)	ND (0.0069)	ND (0.010)	ND (0.0099)	ND (0.011)	ND (0.012)	ND (0.0091)	ND (0.0087)
Di-n-octyl phthalate Diethyl phthalate	27000 550000	2400 49000	mg/kg mg/kg	ND (0.023) ND (0.019)	ND (0.029) ND (0.025)	ND (0.013) 0.0385 J	ND (0.018) a ND (0.015)	ND (0.016) a ND (0.014)	ND (0.026) a ND (0.022)	ND (0.029) ND (0.025)	ND (0.019) ND (0.017)	ND (0.015) a ND (0.013)	ND (0.015) a ND (0.013)	ND (0.019) a ND (0.017)	ND (0.040) a ND (0.034)	ND (0.012) a ND (0.010)	ND (0.011) ND (0.0090)	ND (0.016) a ND (0.013)	ND (0.015) a ND (0.013)	ND (0.018) a ND (0.015)	ND (0.018) a ND (0.015)	ND (0.014) a ND (0.012)	ND (0.013) a ND (0.011)
Dimethyl phthalate	-	-	mg/kg	ND (0.016)	ND (0.021)	ND (0.0094)	ND (0.013)	ND (0.012)	ND (0.019)	ND (0.021)	ND (0.014)	ND (0.011)	ND (0.011)	ND (0.014)	ND (0.029)	ND (0.0088)	ND (0.0075)	ND (0.011)	ND (0.011)	ND (0.013)	ND (0.013)	ND (0.0099)	ND (0.0095)
bis(2-Ethylhexyl)phthalate Fluoranthene	140 24000	35 2300	mg/kg mg/kg	ND (0.021) e ND (0.040)	ND (0.027) e ND (0.052)	ND (0.012) ND (0.024)	ND (0.017) e ND (0.032)	ND (0.015) a 0.113	ND (0.025) a ND (0.047)	0.481 ^a ND (0.052)	0.433 ° 0.23	ND (0.014) a ND (0.028)	ND (0.014) a ND (0.027)	ND (0.018) e 0.0716 J	ND (0.038) e ND (0.072)	ND (0.012) e ND (0.022)	0.141 ^a ND (0.019)	ND (0.015) a ND (0.028)	ND (0.014) a ND (0.027)	ND (0.016) ° 0.127	ND (0.017) a 1.02	ND (0.013) e ND (0.025)	ND (0.012) e ND (0.024)
Fluorene	24000	2300	mg/kg	ND (0.042)	ND (0.054)	ND (0.024)	ND (0.033)	ND (0.030)	ND (0.048)	ND (0.053)	ND (0.036)	ND (0.028)	ND (0.028)	ND (0.036)	ND (0.074)	ND (0.023)	ND (0.019)	ND (0.029)	ND (0.028)	ND (0.032)	ND (0.033)	ND (0.026)	ND (0.025)
Hexachlorobenzene Hexachlorobutadiene	25	0.3 6	mg/kg mg/kg	ND (0.023) ^b ND (0.036)	ND (0.030) D ND (0.047)	ND (0.013) ND (0.021)	ND (0.018) ^b ND (0.029)	ND (0.017) ND (0.026)	ND (0.026) ND (0.042)	ND (0.029) ND (0.047)	ND (0.020) ND (0.031)	ND (0.016) ND (0.025)	ND (0.016) ND (0.025)	ND (0.020) ^b ND (0.031)	ND (0.041) D ND (0.064)	ND (0.012) D ND (0.020)	ND (0.011) ND (0.017)	ND (0.016) ND (0.025)	ND (0.015) ND (0.024)	ND (0.018) ^b ND (0.028)	ND (0.018) ^b ND (0.029)	ND (0.014) D ND (0.022)	ND (0.014) D ND (0.021)
Hexachlorocyclopentadiene	110	45	mg/kg	ND (0.036)	ND (0.047)	ND (0.021)	ND (0.028)	ND (0.026)	ND (0.042)	ND (0.046)	ND (0.031)	ND (0.025)	ND (0.024)	ND (0.031)	ND (0.064)	ND (0.020)	ND (0.017)	ND (0.025)	ND (0.024)	ND (0.028)	ND (0.029)	ND (0.022)	ND (0.021)
Hexachloroethane Indeno(1,2,3-cd)pyrene	48 17	12 5	mg/kg mg/kg	ND (0.045) ND (0.042)	ND (0.058) ND (0.055)	ND (0.026) ND (0.025)	ND (0.035) ND (0.033)	ND (0.032) 0.0499 J ^d	ND (0.052) ND (0.049) a	ND (0.057) ND (0.054)	ND (0.038) 0.196	ND (0.031) ND (0.029) a	ND (0.030) ND (0.029) a	ND (0.039) 0.0984	ND (0.079) ND (0.075)	ND (0.024) ND (0.023)	ND (0.021) ND (0.020)	ND (0.031) ND (0.030) a	ND (0.030) ND (0.028) a	ND (0.035) 0.0985	ND (0.036) 0.189	ND (0.028) ND (0.026)	ND (0.026) ND (0.025)
Isophorone	2000	510	mg/kg	ND (0.019)	ND (0.025)	ND (0.011)	ND (0.015)	ND (0.014)	ND (0.022)	ND (0.025)	ND (0.017)	ND (0.013)	ND (0.013)	ND (0.017)	ND (0.034)	ND (0.011)	ND (0.0090)	ND (0.014)	ND (0.013)	ND (0.015)	ND (0.015)	ND (0.012)	ND (0.011)
2-Methylnaphthalene 2-Nitroaniline	2400 23000	230 39	mg/kg mg/kg	ND (0.020) ND (0.021)	ND (0.026) ND (0.028)	0.0190 J ND (0.012) ^a	ND (0.016) ND (0.017)	ND (0.015) ND (0.015) a	ND (0.024) ND (0.025) a	0.0856 J ND (0.027) °	0.0266 J ND (0.018) ^a	ND (0.014) ND (0.015) a	ND (0.014) ND (0.014) a	ND (0.018) ND (0.018)	ND (0.036) ND (0.038)	ND (0.011) ND (0.012)	ND (0.0095) ND (0.010) °	ND (0.014) ND (0.015) ^a	ND (0.014) ND (0.014) a	ND (0.016) ND (0.017)	ND (0.016) ND (0.017)	ND (0.013) ND (0.013)	ND (0.012) ND (0.013)
3-Nitroaniline	-	-	mg/kg	ND (0.023)	ND (0.029)	ND (0.013)	ND (0.018)	ND (0.016)	ND (0.026)	ND (0.029)	ND (0.019)	ND (0.015)	ND (0.015)	ND (0.019)	ND (0.040)	ND (0.012)	ND (0.011)	ND (0.016)	ND (0.015)	ND (0.018)	ND (0.018)	ND (0.014)	ND (0.013)
4-Nitroaniline Naphthalene	17	6	mg/kg mg/kg	ND (0.023) ND (0.026)	ND (0.030) ND (0.033)	ND (0.014) 0.0169 J	ND (0.018) ND (0.020)	ND (0.017) ND (0.018)	ND (0.027) ND (0.030)	ND (0.030) 0.0736 J	ND (0.020) 0.0353 J	ND (0.016) ND (0.017)	ND (0.016) ND (0.017)	ND (0.020) ND (0.022)	ND (0.042) ND (0.045)	ND (0.013) ND (0.014)	ND (0.011) ND (0.012)	ND (0.016) ND (0.018)	ND (0.016) ND (0.017)	ND (0.018) ND (0.020)	ND (0.019) 0.0300 J	ND (0.014) ND (0.016)	ND (0.014) ND (0.015)
Nitrobenzene	14 0.3	5 0.2	mg/kg	ND (0.035)	ND (0.045)	ND (0.020)	ND (0.028)	ND (0.025)	ND (0.040)	ND (0.045)	ND (0.030)	ND (0.024)	ND (0.024)	ND (0.030)	ND (0.062)	ND (0.019)	ND (0.016)	ND (0.024)	ND (0.023)	ND (0.027)	ND (0.028)	ND (0.022)	ND (0.021)
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine	390	99	mg/kg mg/kg	ND (0.026) ND (0.033)	ND (0.034) ND (0.043)	ND (0.015) ND (0.019)	ND (0.021) ND (0.026)	ND (0.019) ND (0.024)	ND (0.030) ND (0.038)	ND (0.034) ND (0.042)	ND (0.022) ND (0.028)	ND (0.018) ND (0.023)	ND (0.018) ND (0.022)	ND (0.023) ND (0.029)	ND (0.046) ND (0.059)	ND (0.014) ND (0.018)	ND (0.012) ND (0.015)	ND (0.018) ND (0.023)	ND (0.018) ND (0.022)	ND (0.020) ND (0.026)	ND (0.021) ND (0.026)	ND (0.016) ND (0.020)	ND (0.015) ND (0.020)
Phenanthrene	300000 18000	NA 1700	mg/kg	ND (0.030)	ND (0.039)	ND (0.018)	ND (0.024)	0.0402 J	ND (0.035)	0.0546 J	0.0617 J	ND (0.021)	ND (0.021)	ND (0.026)	ND (0.054)	ND (0.017)	ND (0.014)	ND (0.021)	ND (0.020)	ND (0.024)	0.0473 J	ND (0.019)	ND (0.018)
Pyrene 1,2,4,5-Tetrachlorobenzene	18000	1700	mg/kg mg/kg	ND (0.029) ND (0.023)	ND (0.037) ND (0.030)	ND (0.017) ND (0.013)	ND (0.023) ND (0.018) ^b	0.136 ND (0.017)	ND (0.034) ND (0.027)	0.0430 J ND (0.029)	0.282 ND (0.020)	ND (0.020) ND (0.016)	ND (0.020) ND (0.016)	0.117 ND (0.020) ^b	ND (0.051) ND (0.041) ^b	0.0408 J ND (0.012) ^b	0.0791 ND (0.011)	ND (0.020) ND (0.016)	ND (0.019) ND (0.015)	0.177 ND (0.018) ^b	0.876 ND (0.018) ^b	0.0383 J ND (0.014) ^b	ND (0.017) ND (0.014) ^b
MS Semi-volatile TIC																							
Total TIC, Semi-Volatile	-	-	mg/kg	0.47 J	2.14 J	1.27 J	3.9 J	0.38 J	0.67 J	10.39 J	2.18 J	0.55 J	0.85 J	0	0	0.41 J	4.45 J	0.29 J	0.25 J	0.3 J	0.4 J	0.4 J	10.04 J
GC/LC Semi-volatiles (NJDEP E	PH)																						
C10-C12 Aromatics	-	-	mg/kg	ND (7.4)	ND (8.7)	ND (3.8)	ND (5.7)	ND (4.7)	ND (8.1)	ND (8.8)	ND (6.2)	ND (5.1)	ND (5.0)	ND (6.3)	ND (13)	ND (3.8)	ND (3.4)	ND (5.0)	ND (5.0)	ND (5.4)	ND (5.6)	ND (4.2)	ND (4.2)
C12-C16 Aromatics	-	-	mg/kg	ND (7.4)	ND (8.7)	ND (3.8)	ND (5.7)	ND (4.7)	ND (8.1)	ND (8.8)	ND (6.2)	ND (5.1)	ND (5.0)	ND (6.3)	ND (13)	ND (3.8)	ND (3.4)	ND (5.0)	ND (5.0)	ND (5.4)	ND (5.6)	ND (4.2)	ND (4.2)
C16-C21 Aromatics C21-C36 Aromatics	-	-	mg/kg mg/kg	ND (7.4) ND (7.4)	ND (8.7) ND (8.7)	ND (3.8) ND (3.8)	ND (5.7) ND (5.7)	ND (4.7) ND (4.7)	ND (8.1) ND (8.1)	114 115	ND (6.2) ND (6.2)	ND (5.1)	ND (5.0) ND (5.0)	ND (6.3) ND (6.3)	ND (13) ND (13)	ND (3.8) ND (3.8)	12 29.5	ND (5.0) ND (5.0)	ND (5.0) ND (5.0)	58.4 113	38.7 63.5	ND (4.2) ND (4.2)	ND (4.2) ND (4.2)
Total Aromatics	-	-	mg/kg	ND (7.4)	ND (8.7)	ND (3.8)	ND (5.7)	ND (4.7)	ND (8.1)	229	ND (6.2)	ND (5.1)	ND (5.0)	ND (6.3)	ND (13)	ND (3.8)	41.5	ND (5.0)	ND (5.0)	171	102	ND (4.2)	ND (4.2)
C9-C12 Aliphatics C12-C16 Aliphatics	-	-	mg/kg mg/kg	ND (7.4) ND (7.4)	ND (8.7) ND (8.7)	ND (3.8) ND (3.8)	ND (5.7) ND (5.7)	ND (4.7) ND (4.7)	ND (8.1) ND (8.1)	28.9 184	ND (6.2) 26.7	ND (5.1) ND (5.1)	ND (5.0) ND (5.0)	ND (6.3) ND (6.3)	ND (13) ND (13)	ND (3.8) ND (3.8)	ND (3.4) 13.5	ND (5.0) ND (5.0)	ND (5.0) ND (5.0)	13.1 58.5	19.9 78.8	ND (4.2) ND (4.2)	ND (4.2) ND (4.2)
C16-C21 Aliphatics	-	-	mg/kg	ND (7.4) ND (7.4)	ND (8.7)	ND (3.8)	12.8	ND (4.7) ND (4.7)	ND (8.1)	262	43	ND (5.1)	ND (5.0)	ND (6.3)	ND (13)	16.4	26.7	ND (5.0)	ND (5.0)	133	95	11.5	13.2
C21-C40 Aliphatics Total Aliphatics	-	-	mg/kg mg/kg	ND (7.4) ND (7.4)	ND (8.7) ND (8.7)	ND (3.8) ND (3.8)	ND (5.7) 12.8	ND (4.7) ND (4.7)	ND (8.1) ND (8.1)	353 828	60.2 130	ND (5.1) ND (5.1)	ND (5.0) ND (5.0)	ND (6.3) ND (6.3)	ND (13) ND (13)	41.1 57.6	62.3 102	ND (5.0) ND (5.0)	ND (5.0) ND (5.0)	247 452	167 361	30.3 41.8	27.3 40.5
Total EPH	-	-	mg/kg	ND (7.4) ND (15)	ND (6.7)	ND (3.6)	12.8	ND (4.7) ND (9.4)	ND (6.1) ND (16)	1060	130	ND (5.1)	ND (5.0) ND (9.9)	ND (6.3)	ND (13)	57.6	144	ND (5.0) ND (9.9)	ND (5.0) ND (10)	623	463	41.8	40.5
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Table 7.5

Smith Creek and Smith Creek Pond Deep Sediment Screening
Former Hess Port Reading Terminal Site
Port Reading, New Jersey

Client Sample ID:				SS-25B	SS-25C	SS-26B	SS-26C	SS-27B	SS-28C	SS-29B	SS-29C	SS-30B	SS-30C	SS-31B	SS-31C	SS-32B	SS-32C	SS-33B	SS-33C	SS-34B	SS-34C	SS-35B	SS-35C
Sample Depth	NJ Non-Residential Direct	NJ Residential		2.0-2.5	3.5-4.0	2.0-2.5	3.5-4.0	2.5-3.0	4.5-5.0	2.0-2.5	3.5-4.0	2.0-2.5	3.5-4.0	2.5-3.0	5.0-5.5	2.5-3.0	4.5-5.0	1.0-1.5	1.5-2.0	2.5-3.0	4.5-5.0	2.0-2.5	3.5-4.0
Date Sampled:	Contact Soil	Direct Contact Soil		2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019	2/21/2019	2/21/2019	2/22/2019	2/22/2019	2/22/2019	2/22/2019
Matrix:		3011		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
muu ixi				00	00	00	00	00.1	00	00	00	00	0011	00	00	00	00.1	00	00	00	00	0011	
Metals Analysis																							
Alumiumn	NA	78000	mg/kg	28700	35300	24300	27800	15000	17800	31100	29700	29700	34300	32900	31900	22100	19000	5980	5390	30900	26300	30100	33300
Antimony	450	31	mg/kg	<5.6	<7.0	<3.2	<4.4	<3.8	<6.4	<7.2	<4.9	<4.0	<3.8	<4.6	<11	<3.0	2.7	<3.7	<3.7	<4.6	5.8	<3.4	<3.3
Arsenic	19	19	mg/kg	8.3	18.2	34.7 ^f	36.2 ^f	86.5	12.3	64.4	123 ^f	17.9	11.1	28.8	30.8	22.1	12.9	11.7	11.1	139	175 ^f	92.7 ^f	96.6 ^f
Barium	59000	16000	mg/kg	60.9	<70	276	375	107	65.5	558	554	70.9	68.7	72.1	<110	36.6	34.7	67.5	59.8	315	352	538	811
Beryllium	140	16	mg/kg	1.1	1.5	2.7	2.3	1.6	1.6	3.2	3.2	1.6	1.5	1.1	<1.1	0.5	0.48	1.5	1.3	1.3	1.6	3.4	3.3
Cadmium	78	78	mg/kg	<1.4	<1.7	<0.81	<1.1	<1.9 ^g	<1.6	4.6	3.7	<2.0 g	<1.9 ^g	<1.1	<2.6	3.1	2.1	<1.8 ⁹	<1.9 ⁹	5	2.7	<0.84	<0.82
Calcium	-		mg/kg	2560	4110	5310	9340	2390	2740	7320	7780	3980	7350	2080	4320	<760	<650	2070	2360	2890	3580	14700	17200
Chromium	-		mg/kg	46.3	53.2	33.1	43.1 ^f	91.1	52.8	276	514 ^f	49.6	48.9	50.1	48.3	30.6	28.3	47.3	44.8	177	117	75.5 ^f	72.4 ^f
Cobalt	590	1600	mg/kg	<14	<17	11.8	<11	14.7	<16	<18	18.3	15.1	13.6	11.4	<26	<7.6	7.1	13.7	12.1	13.1	16.4	19.9	13.5
Copper	45000	3100	mg/kg	15	28.5	37.2 ^f	31.4 ^f	175 ^g	17.1	442	283 ^f	25.5 ^g	23.2 ^g	71.2	92.1	123	169	29.0 ^g	21.4 ^g	586	1100 ^f	69.7 ^f	61.5 ^f
Iron	-	-	mg/kg	24400	38600	37800	51300	45000	42000	71400	66100	53700	45300	34000	35100	26600	13800	42100	42800	44400	53800	87500	80600
Lead	800	400	mg/kg	18.2	31	23.5 ^f	22.0 f	226 ^g	18.7	297	179 ^f	36.1 ^g	26.7 g	61.4	72.1	67.1	89.5	66.5 ^g	22.4 ^g	370	527 ^f	40.7 ^f	40.4 ^f
Magnesium	-		mg/kg	7060	9010	2770	6450	8710	9450	7220	6680	9860	9620	6480	5680	1540	1250	9140	8810	7230	9460	5870	6560
Manganese	5900	11000	mg/kg	192	280	67.3 ^f	120 ^f	363 ^g	336	198	305 ^f	1220 ^g	677 ^g	203	147	76.9	54.4	434 ^g	453 ^g	311	388 ^f	209 ^f	237 ^f
Mercury	65	23	mg/kg	<0.069	<0.087	0.099	0.4	2.6	< 0.073	3	3.5	0.065	0.058	1.5	1.1	0.49	0.17	0.089	<0.044	11.4	3.5	1.5	1.4
Nickel	23000	1600	mg/kg	25.8	40.5	38.7	36.8	55.3	33	103	68.4	39.1	37.3	35.1	32.2	25.7	26	36.6	33.3	59	105	78.9	47.3
Potassium	-		mg/kg	6180	6920	1690	<2200	5470	6800	<3600	4110	6300	6360	4630	<5300	<1500	<1300	5850	5500	4120	5230	2810	2880
Selenium	5700	390	mg/kg	<5.6	<7.0	<6.5 ^f	<8.8 ^f	<7.6 ^g	<6.4	<7.2	<9.7 ^f	<8.0 ^g	<7.7 ⁹	<4.6	<11	<3.0	<2.6	<7.3 ⁹	<7.4 ⁹	9.8	28.6 ^f	<17 ^f	<9.8 ^f
Silver	5700	390	mg/kg	<1.4	<1.7	<1.6 ^f	<2.2 f	<1.9 ^g	<1.6	5.2	<2.4 f	<2.0 ^g	<1.9 ⁹	<1.1	<2.6	1.1	0.73	<1.8 ⁹	<1.9 ⁹	5.4	3.4 ^f	<4.2 f	<2.5 ^f
Sodium	-	-	mg/kg	10200	13500	4810	7170	6710	10900	18100	10300	7670	9160	7120	17900	2920	2190	7180	7070	5400	7100	1890	2740
Thallium	-	-	mg/kg	<2.8	<3.5	<3.2 ^f	<4.4 ^f	<3.8 ^g	<3.2	<7.2 ^f	<4.9 f	<4.0 ^g	<3.8 ^g	<2.3	<5.3	<1.5	<1.3	<3.7 ⁹	<3.7 ^g	<4.6 ^f	<4.6 ^f	<8.4 ^f	<4.9 ^f
Vanadium	1100	78	mg/kg	62.3	75.6	143	144	105	64.9	428	221	66.3	65.5	59	71.2	51.5	49.2	61.6	57.5	113	58.1	517	177
Zinc	110000	23000	mg/kg	54.7	98.9	45.5	47.9	268	86.6	467	357	103	105	130	141	230	310	108	92.3	542	591	101	98.4

ATTACHMENT 8 PHOTOGRAPHS

Former Bowtie Pool Complex Woodbridge, NJ





Smith Creek Port Reading, NJ Fish Consumption Advisory Sign

